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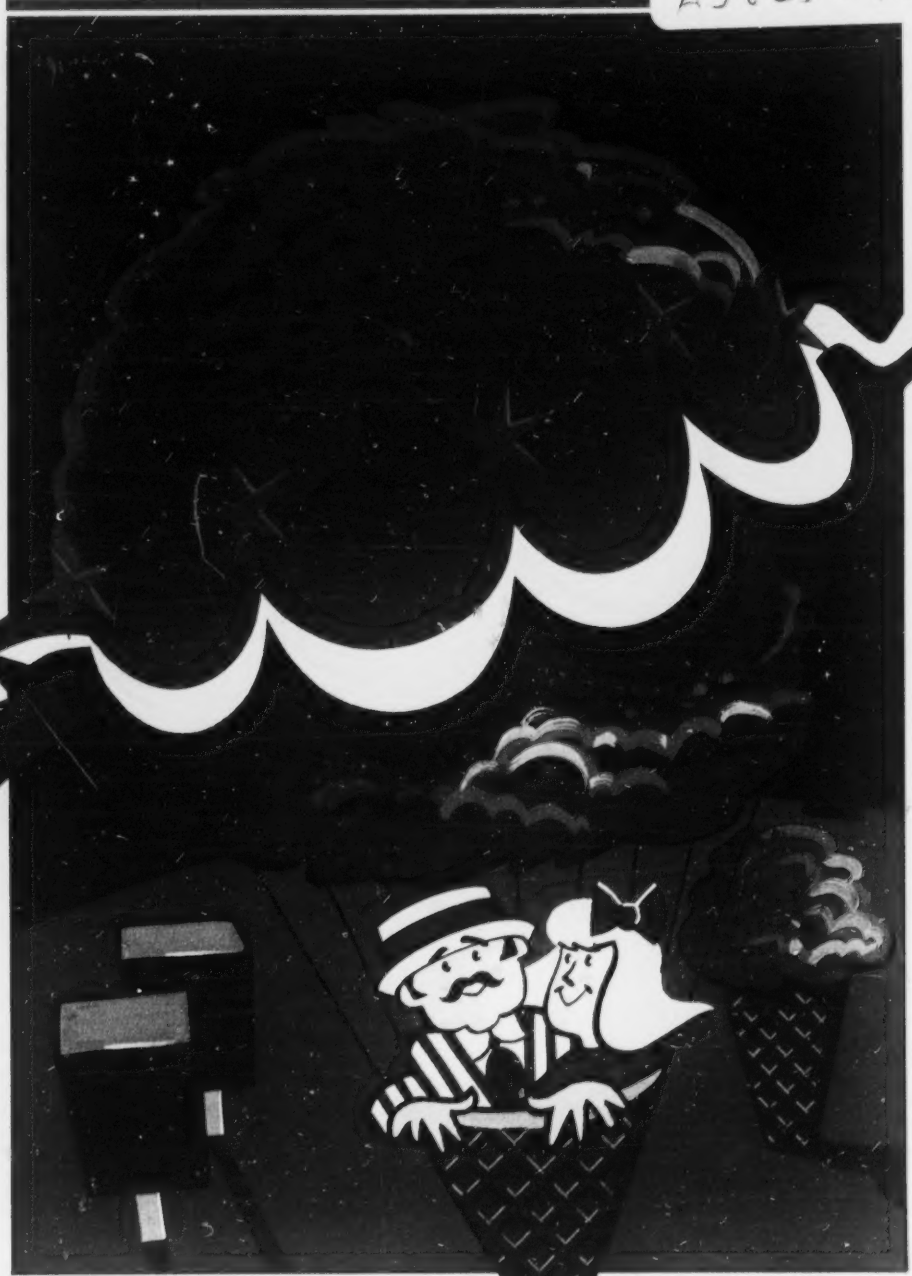

# THE LATEST SCOOP

1990 ♦ EDITION

## Ice Cream For America

One of the International Ice Cream Association's (IICA's) major objectives is increasing national sales and consumption of member companies' products—ice cream, ice milk, frozen yogurt, and other frozen desserts. ICE CREAM FOR AMERICA is a nationwide program that accomplishes this objective. Sponsored by Association members, ICE CREAM FOR AMERICA encourages the trade to strengthen ice cream promotions, and increases consumer awareness of ice cream and related products.

The ICE CREAM FOR AMERICA program's current focus is the "July is National Ice Cream Month" campaign. This campaign encourages retailers to increase in-store advertising and promotion, displays, and merchandising of ice cream and related products during July, National Ice Cream Month.

Retailers, wholesalers, and suppliers participate in the "July is National Ice Cream Month" campaign because it increases their profits. IICA also gives them another incentive: The Golden Cone Awards. These awards, presented each October, recognize the best "July is National Ice Cream Month" promotions.

In addition to these activities, the National Dairy Promotion and Research Board (NDB) has joined IICA in promoting ice cream. The NDB, funded by dairy farmers, dedicated $5.8 million in 1989 to an extensive television and trade advertising campaign.

The ICE CREAM FOR AMERICA program and July, National Ice Cream Month are launched with the Capitol Hill Ice Cream Party in Washington, DC. More than 10,000 people attend the gala each year, including senators, representatives, Congressional staff members, government officials, and press.

# THE LATEST SCOOP

WORLDWIDE

FACTS & FIGURES ON ICE CREAM
& RELATED PRODUCTS

Published by

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# Foreword

Ice cream, with its universal appeal to all age groups, continues to grow in popularity. Record high sales of ice cream and related products were registered in 1989.

"The Latest Scoop" reports the trends taking place in the industry and contains information on production and sales in the United States, Canada and 47 other countries, as well as economic data and other relevant information.

The International Ice Cream Association is the trade association for manufacturers and distributors of ice cream and other frozen dessert products. IICA is one of the four constituent organizations of the International Dairy Foods Association. The Association's activities range from legislative and regulatory advocacy to market research and industry training and education. Its 210 member companies produce an estimated 85 percent of ice cream and related products consumed in the United States and Canada.

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Additional copies to members of the International Ice Cream Association, 1-24 copies, $2.50 per copy; 25-99 copies $2.00 each; 100-499 copies $1.50 each; over 500 copies $1.00 each. Copies to nonmembers $25.00 each. Minimum order for members $10.00. Minimum order for nonmembers $25.00. Includes postage and handling charges.

# Contents


GENERAL INFORMATION — *Page No.*

Historical Highlights ..... 1
How Ice Cream is Made ..... 2
Overview—United States ..... 3
International Review ..... 4
Definitions - Selected Frozen Desserts ..... 5
Nutrition Information ..... 5
Employment, Wages & Value of Shipments, 1963-1989 ..... 6
Capital Expenditures for New Plants & Equipment ..... 7
The "Real" Price of Ice Cream, 1979-1989 ..... 8
U.S. Exports of Ice Cream & Related Products ..... 8

TOTAL PRODUCTION (HARD AND SOFT) — UNITED STATES

Production Changes, 1989 ..... 4
Total and Per Capita, 1879-1989 ..... 9
By States, 1989 ..... 10
Five Leading States, 1989 with Chart ..... 11
Monthly, 1987-1989 ..... 12
Production by Regions, 1989 ..... 13
Per Capita by Regions, 1970-1989 ..... 14
Production & Percentage Change, Ice Cream & Ice Milk, by Regions ..... 15
Mix for Frozen Products, by States 1989 ..... 16
Number of Plants, 1962-1989 ..... 17

HARD FROZEN PRODUCTION - UNITED STATES

Total and Per Capita, 1965-1989 ..... 18
By Regions, 1989 ..... 19
Per Capita & Percentage by Products, by Regions 1970-1989 ..... 20

SOFT SERVE PRODUCTION — UNITED STATES

Total and Per Capita, 1965-1989 ..... 21
By Regions, 1989 ..... 22
Per Capita & Percentage by Products, by Region, 1970-1989 ..... 23

INDUSTRY SALES HIGHLIGHTS

Total Industry Sales ..... 24
Quality Segments ..... 24
Frozen Yogurt ..... 25
Frozen Novelties ..... 25
Foodservice Sales ..... 25
Industry Profit Ratios ..... 26
Ice Cream Packaging ..... 27
Ice Cream Flavors & Flavor Categories ..... 27

REVIEW - CANADA

Production 1989 ..... 28
By Products, 1973-1989 ..... 29
Monthly, 1989 ..... 30
Ice Cream Per Capita, by Provinces, 1980-1989 ..... 31
Ice Cream, Hard & Soft, by Provinces, 1987-1989 ..... 32

PRODUCTION — OTHER COUNTRIES

Total and Per Capita ..... 33-37

# How It All Started

Ice cream probably evolved from chilled wines and other iced beverages. In the fourth century before Christ, Alexander the Great was reputed to be fond of iced beverages.

And, from ancient records, it is learned that in 62 A.D., the Roman Emperor, Nero, sent fleets of slaves to the mountains of the Apennines to fetch snow and ice which were then flavored with nectar, fruit pulp and honey.

Marco Polo, the 13th century bard and adventurer, brought with him to Europe from the Far East, recipes for water ices...said to be used in Asia for thousands of years. These water ices became popular in Venice and throughout Italy.

When Catherine de Medici married Henry II and became Queen of France in 1533, she brought with her recipes for Italian sherbet. It is said that her son, Henry III, was addicted to these delicacies and consumed them daily.

In 1660 the Cafe Procope was founded in Paris by an Italian named Coltelli, and water ices and possibly cream ices were manufactured and dispensed.

This delicacy found its way to America and in 1700 Governor Bladen of Maryland was serving ice cream to his guests.

Dolly Madison created a sensation when she served ice cream as a dessert in the White House at the second inaugural ball in 1812.

The first hand-cranked freezer was invented by Nancy Johnson in 1846. She failed to patent it, however, and a similar type was patented by a Mr. Young in 1848.

The first commercial ice cream plant was established in Baltimore in 1851 by Jacob Fussell.

A year before the turn of the century, August Gaulin of Paris invented the homogenizer which is used to help develop the smooth texture of ice cream.

With the coming of mechanical refrigeration, the first batch freezer was invented by H. H. Miller of Canton, Ohio. About 1926, the first continuous freezer was commercially perfected by Clarence Vogt of Louisville, Kentucky.

Italo Marchiony, who emigrated from Italy in the late 1800s, produced the first ice cream cone in 1896 in New York City. He was granted a patent for his special mould in December 1903. In 1904, the ice cream cone was introduced at the St. Louis World's Fair when a Syrian waffle concessionaire named E. A. Hamwi started rolling waffles into the shape of a cone for the benefit of an ice cream vendor who occupied an adjoining booth. It has remained a favorite to this date, with billions of cones consumed each year. Other products, such as ice cream on sticks, ice cream bars and other forms of ice cream, ice milk and sherbet, known in the industry as "novelties" had their beginning in the 1920s.

# How Ice Cream Is Made

The basic mix for the manufacture of ice cream is largely cream and other milk ingredients, plus sweeteners.

The ingredients of the mix are carefully blended in proper proportions in a mixing tank. The mix may contain small amounts of functional ingredients, such as a stabilizer, which prevents the formation of ice crystals in the ice cream after it is frozen.

The mix goes to a pasteurizer where it is heated and held at a predetermined temperature for a specified period of time. The most common type of pasteurization is the high-temperature-short-time method in which the mix is heated to 175 degrees F. and held for 25 seconds.

The hot mix then goes to the homogenizer where, under pressure of from 2,000 to 2,500 pounds per square inch, the milkfat globules are broken into still smaller particles to help make the ice cream smooth.

After homogenization, the hot mix is quickly cooled to a temperature of about 40 degrees F.

Next, freezing of the mix is accomplished by one of two methods: a "continuous freezer" which uses a steady flow of mix; or a "batch freezer" which makes a single quantity of ice cream at a time.

While the ice cream is being frozen, blades in the freezer, or "dashers" as they are commonly called, whip and aerate the products. Without this aeration, the finished product would be an inedible, solidly frozen mass of cream, milk, sugar and flavoring. In all states, this aeration, called "overrun," is controlled by requiring the finished ice cream shall weigh not less than 4.5 pounds per gallon and contain at least 1.6 pounds of total food solids.

With the use of the continuous freezer, ingredients such as fruits and nuts are added after the freezing by a mechanical flavor feeder. Liquid flavors are added to the mix prior to freezing.

The filling operation includes many activities such as filling large containers, half gallon, quart and pint packages, paper cups or molds for ice cream on a stick.

After the freezer and filling, ice cream goes to the "hardening room" where subzero temperatures further harden the ice cream. From the hardening room, it is loaded into refrigerated trucks for delivery to distributors or retailers.

# Overview
## United States

The frozen dessert market in 1989 showed stability and maintained its 1988 volume level when all products are taken into consideration. Total frozen dessert production for the U.S. reached a record 1.43 billion gallons. Trends for individual product categories, however, were mixed.

The total retail value of ice cream and all related products is estimated at approximately $9.2 billion for 1989.

Total ice cream production dropped nearly 6 percent during 1989 and registered 831 million gallons. Even within the product category, trends were mixed. All of the decline in volume was concentrated in hard production. Soft serve production showed a very respectable gain of 10 percent for the year. Per capita production of ice cream stood at 13.40 quarts for 1989, down from 14.35 quarts a year earlier.

Frozen dessert volume during 1989 experienced its biggest gains from ice milk and frozen yogurt. These gains were enough to offset the decline in ice cream production and boost frozen dessert volume marginally for the year.

Ice milk saw a healthy 6.1 percent gain in volume during 1989 and reached 376.5 million gallons. Most of the increase continued to come from hard ice milk production which increased a substantial 26 percent for the year. Soft serve ice milk production, on the other hand, declined by a little more than one percent. By the end of 1989, per capita production of total ice milk stood at a record high of 6.1 quarts.

Frozen yogurt continued as a bright spot for the frozen dessert market in 1989. IICA estimates the increase in total frozen yogurt production for 1989 in excess of 50%. While USDA data for hard production versus soft serve are not available, IICA estimates that hard frozen yogurt production nearly tripled in 1989 while soft-serve production increased nearly one-third. Total frozen yogurt production for 1989 stood at 82.5 million gallons with per capita production at 1.3 quarts. (IICA estimates of 1989 regional total and per capita production of the finished frozen yogurt product may be found on pages 13 and 14.)

Regional shifts in frozen dessert total and per capita production were relatively significant in 1989. The West North Central emerged in 1989 with the largest per capita production of frozen desserts (including frozen yogurt) at 21.2 quarts. New England followed closely with per capita frozen dessert production of 19.44 quarts. The regions which showed the most substantial declines in per capita production (which is often used as a proxy for per capita consumption at the regional and U.S. levels) were the Mid Atlantic and the East North Central.

## ICE CREAM AND RELATED FROZEN DESSERTS
### Total and Per Capita Production

| | 1989 | % Change from 1988 |
|---|---|---|
| Total, Ice Cream & Related Frozen Desserts | 1,433,298,000 gals. | n.a. |
| Per Capita Production | 23.10 qts. | n.a. |
| Ice Cream (Hard & Soft) | 831,159,000 gals. | – 5.8 |
| Per Capita Production | 13.40 qts. | – 6.6 |
| Ice Milk (Hard & Soft) 1] | 376,507,000 gals. | + 6.1 |
| Per Capita Production | 6.07 qts. | + 5.2 |
| Frozen Yogurt (Hard & Soft) | 82,454,000 gals. | n.a. |
| Per Capita Production | 1.33 qts. | n.a. |
| Sherbet (Hard & Soft) | 52,197,000 gals. | 0.0 |
| Per Capita Production | 0.84 qts. | – 1.2 |
| Water Ices 2] | 47,657,000 gals. | – 5.4 |
| Per Capita Production | 0.77 qts. | – 6.1 |
| Other Frozen Dairy Products 3] | 43,324,000 gals. | n.a. |
| Per Capita Production | 0.70 qts. | n.a. |

1] Includes freezer-made milkshakes.
2] Also contains sorbet, frozen juice bars and gelatin pops.
3] Includes nonfat dairy desserts, mellorine-type and other vegetable fat products, pudding pops, tofu-based products and other miscellaneous frozen dairy desserts.

n.a. — not available

Note: Frozen yogurt data are available and included in total frozen desserts beginning in 1989. While a direct comparison with 1988 is not available, IICA estimates that total frozen dessert production in 1989 was flat compared to 1988 production.

## INTERNATIONAL REVIEW

The United States remained the largest consumer of ice cream and related frozen desserts with a per capita production of 46.2 pints in 1989. Finland continues in second place with per capita consumption of 42.1 pints (for 1987, the latest data reported.) Australia ranks as the third largest consumer of frozen dairy desserts with 36.13 pints in 1989. New Zealand remains in fourth place with per capita consumption of 32.7 pints for 1987 (the latest data available). Canada continued in fifth place in 1989 with per capita consumption of 29.6 pints.

## U.S. EXPORTS

U.S. exports of ice cream and related products totalled 3.5 million gallons in 1989 with a related value of $9.4 million. The dollar value of frozen dessert exports increased 43% in 1989 compared to 1988 while volume exported was up 13% for the year.

The highest dollar value of frozen dessert exports in 1989 went to:

| | | | |
|---|---|---|---|
| Hong Kong | $2.6 million | Neth. Antilles | $ .6 million |
| Bermuda | $1.0 million | Germany | $ .5 million |
| Mexico | $ .7 million | France | $ .5 million |

Significant growth in U.S. exports of frozen desserts is expected to continue in 1990, particularly to developed countries with relatively higher per capita incomes.

## THE "REAL" PRICE OF ICE CREAM
1979 - 1989

| Year | Average Wages All Manufacturing Production Workers | Average Retail Price of Ice Cream | Labor Required to Purchase Half Gallon of Ice Cream |
|---|---|---|---|
| | $ per Hour | ¢ per ½ Gallon | Minutes |
| 1979 | 6.70 | 163.3 | 14.6 |
| 1980 | 7.27 | 182.3 | 15.0 |
| 1981 | 7.99 | 201.6 | 15.1 |
| 1982 | 8.49 | 210.3 | 14.9 |
| 1983 | 8.83 | 215.8 | 14.7 |
| 1984 | 9.19 | 221.8 | 14.5 |
| 1985 | 9.54 | 229.9 | 14.5 |
| 1986 | 9.73 | 235.7 | 14.5 |
| 1987 | 9.91 | 246.0 | 14.9 |
| 1988 | 10.17 | 246.0 | 14.5 |
| 1989 | 10.47 | 263.0 | 15.1 |
| % Change 1979-1989 | +56% | +61% | +3% |

Source: Bureau of Labor Statistics, U.S. Department of Labor.

## U.S. EXPORTS OF ICE CREAM AND RELATED PRODUCTS, 1988-1989

| EXPORTED TO: | TOTAL FROZEN DESSERT VOLUME (000 gallons) | | | TOTAL FROZEN DESSERT VALUE (000 $) | | |
|---|---|---|---|---|---|---|
| | 1988 | 1989 | % change 1988-1989 | 1988 | 1989 | % change 1988-1989 |
| Australia | 41.7 | 71.5 | +71.5 | $59.7 | $74.7 | + 25.1 |
| Bermuda | 166.9 | 298.4 | +78.8 | 315.1 | 1,003.0 | +218.1 |
| Bahamas | 162.8 | 100.9 | -38.0 | 325.4 | 372.6 | + 14.5 |
| Canada | 284.1 | 120.0 | -57.8 | 541.8 | 373.2 | - 31.1 |
| France | 80.2 | 110.3 | +37.5 | 134.3 | 520.3 | +287.4 |
| Germany (West) | 357.5 | 106.3 | -70.3 | 1,018.7 | 536.9 | - 47.2 |
| Greece | 0 | 88.2 | — | 0 | 353.8 | -- |
| Hong Kong | 760.5 | 929.5 | +22.2 | 1,555.4 | 2,613.2 | + 68.0 |
| Japan | 34.5 | 67.2 | +94.8 | 69.0 | 248.3 | +260.0 |
| Leeward-Windward Isl. | 69.6 | 53.4 | -23.3 | 139.5 | 170.6 | + 22.3 |
| Marshall Islands | 76.2 | 73.0 | -4.2 | 176.2 | 168.0 | - 4.7 |
| Micronesia, Federate | 140.1 | 50.0 | -64.3 | 245.0 | 212.6 | - 13.2 |
| Mexico | 0.9 | 294.0 | — | 1.9 | 721.8 | -- |
| Neth. Antilles | 395.0 | 597.8 | +51.3 | 729.4 | 631.3 | - 13.4 |
| Saudi Arabia | 7.0 | 160.2 | — | 14.0 | 54.1 | -286.4 |
| Singapore | 155.2 | 75.5 | -51.4 | 443.0 | 363.0 | - 18.1 |
| United Arab Emirates | 41.5 | 28.4 | -31.6 | 104.7 | 64.9 | - 38.0 |
| United Kingdom | 2.6 | 36.3 | — | 5.2 | 270.2 | -- |
| All Other | 292.4 | 198.0 | -32.3 | 699.6 | 647.6 | - 7.4 |
| **Total** | 3,068.7 | 3,458.9 | +12.7 | 6,577.9 | 9,400.1 | + 42.9 |

--Percentage changes are in excess of 1,000%

Source: USDA

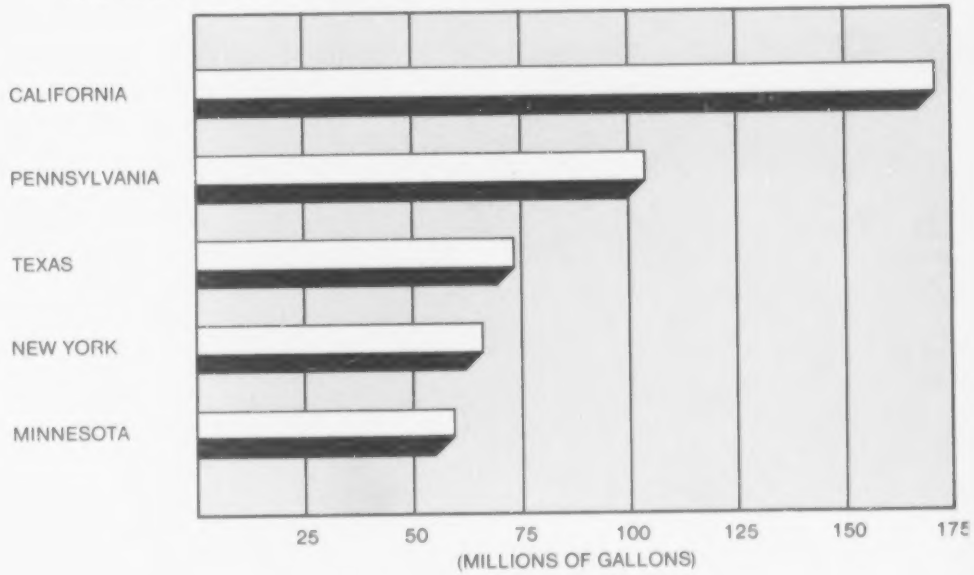
## PRODUCTION OF ICE CREAM AND RELATED PRODUCTS (HARD AND SOFT) BY STATES AND REGIONS · 1989

| STATE & REGION | ICE CREAM | ICE MILK 1/ | SHERBET | WATER ICES 2/ | FROZEN YOGURT 3/ | OTHER FROZEN DAIRY PRODUCTS 4/ | TOTAL FROZEN PRODUCTS |
|---|---|---|---|---|---|---|---|
| | | | (Thousand Gallons) | | | | |
| NEW ENGLAND | | | | | | | |
| Maine | 1,708 | 5/ | 5/ | 5/ | n.a. | — | 1,708 |
| New Hampshire | 5/ | 5/ | 5/ | — | n.a. | — | 5/ |
| Vermont | 5/ | 5/ | 5/ | — | n.a. | — | 5/ |
| Massachusetts | 38,546 | 5/ | 2,168 | 5/ | n.a. | 558 | 41,272 |
| Rhode Island | 5/ | 5/ | 5/ | — | n.a. | — | 5/ |
| Connecticut | 5/ | 5/ | 5/ | 5/ | n.a. | 5/ | 5/ |
| MID ATLANTIC | | | | | | | |
| New York | 46,507 | 13,249 | 2,456 | 5,006 | n.a. | 5/ | 67,218 |
| New Jersey | 18,232 | 4,562 | 251 | 238 | n.a. | — | 23,283 |
| Pennsylvania | 73,583 | 23,065 | 4,645 | 2,408 | n.a. | 5/ | 103,701 |
| E.N. CENTRAL | | | | | | | |
| Ohio | 30,571 | 14,787 | 2,577 | 681 | n.a. | 634 | 49,250 |
| Indiana | 26,256 | 14,945 | 2,201 | 5/ | n.a. | 5/ | 43,402 |
| Illinois | 22,885 | 21,497 | 1,515 | 1,111 | n.a. | 5/ | 47,008 |
| Michigan | 27,421 | 14,451 | 1,971 | 5/ | n.a. | 5/ | 43,843 |
| Wisconsin | 21,313 | 6,489 | 1,328 | 2,924 | n.a. | 5/ | 32,054 |
| W.N. CENTRAL | | | | | | | |
| Minnesota | 38,975 | 18,563 | 2,313 | 5/ | n.a. | — | 59,851 |
| Iowa | 27,040 | 9,405 | 2,802 | 5/ | n.a. | 5/ | 39,247 |
| Missouri | 15,481 | 8,425 | 885 | 5,777 | n.a. | 1,249 | 31,817 |
| North Dakota | 1,973 | 1,506 | 52 | 5/ | n.a. | — | 3,531 |
| South Dakota | 5/ | 5/ | — | — | n.a. | — | 5/ |
| Nebraska | 5/ | 2,225 | 5/ | 5/ | n.a. | 5/ | 2,225 |
| Kansas | 6,322 | 6,139 | 394 | 5/ | n.a. | 5/ | 12,855 |
| SOUTH ATLANTIC | | | | | | | |
| Delaware | 5/ | 5/ | — | — | n.a. | — | 5/ |
| Maryland & D.C. | 19,117 | 5,632 | 1,488 | 5/ | n.a. | 5/ | 26,237 |
| Virginia | 10,455 | 11,227 | 906 | 20 | n.a. | 5/ | 22,608 |
| West Virginia | 5/ | 5/ | 5/ | 5/ | n.a. | — | 5/ |
| North Carolina | 33,589 | 10,068 | 1,497 | 830 | n.a. | 514 | 46,498 |
| South Carolina | 14,398 | 5,284 | 1,340 | 5/ | n.a. | 5/ | 21,022 |
| Georgia | 11,087 | 5/ | 5/ | 5/ | n.a. | 5/ | 11,087 |
| Florida | 28,133 | 18,332 | 2,685 | 5/ | n.a. | 5/ | 49,150 |
| SOUTH CENTRAL | | | | | | | |
| Kentucky | 5/ | 5/ | 5/ | 5/ | n.a. | 5/ | 5/ |
| Tennessee | 18,611 | 5,587 | 867 | 527 | n.a. | 5/ | 25,592 |
| Alabama | 21,447 | 11,653 | 2,347 | 5/ | n.a. | 5/ | 35,447 |
| Mississippi | 5/ | 2,046 | 5/ | 5/ | n.a. | — | 2,046 |
| Arkansas | 5,035 | 1,968 | 269 | — | n.a. | 5/ | 7,272 |
| Louisiana | 5/ | 4,360 | 5/ | 5/ | n.a. | 5/ | 4,360 |
| Oklahoma | 12,595 | 5,298 | 886 | 5/ | n.a. | 126 | 18,905 |
| Texas | 46,368 | 21,639 | 2,250 | 2,977 | n.a. | 100 | 73,334 |
| MOUNTAIN | | | | | | | |
| Montana | 5/ | 871 | 5/ | 5/ | n.a. | 100 | 971 |
| Idaho | 5/ | 5/ | 5/ | 5/ | n.a. | — | 5/ |
| Wyoming | 5/ | 5/ | 5/ | — | n.a. | — | 5/ |
| Colorado | 10,643 | 6,603 | 430 | 316 | n.a. | 95 | 18,087 |
| New Mexico | 5/ | 5/ | 5/ | 5/ | n.a. | — | 5/ |
| Arizona | 7,442 | 5,919 | 565 | 5/ | n.a. | — | 13,926 |
| Utah | 8,085 | 3,692 | 525 | 5/ | n.a. | 5/ | 12,302 |
| Nevada | 5/ | 5/ | 5/ | — | n.a. | — | 5/ |
| PACIFIC | | | | | | | |
| Washington | 16,568 | 9,560 | 1,384 | 5/ | n.a. | 5/ | 27,512 |
| Oregon | 8,212 | 4,188 | 307 | 5/ | n.a. | — | 12,707 |
| California | 107,758 | 42,262 | 5,208 | 2,778 | n.a. | 13,144 | 171,150 |
| Other States 6/ | 54,803 | 41,010 | 3,685 | 22,064 | 82,454 | 26,804 | 230,820 |
| UNITED STATES | 831,159 | 376,507 | 52,197 | 47,657 | 82,454 | 43,324 | 1,433,298 |

1/ Includes freezer-made milkshake.
2/ Also contains sorbet, frozen juice bars and gelatin pops.
3/ Frozen yogurt data for individual States is not available for 1989.
4/ Includes nonfat dairy desserts, and tofu-based products and miscellaneous frozen dessert products for individual states. Mellorine-type products are included in U.S. total and totals for "Other States."
5/ State data not shown when less than 3 plants reported or individual operations might be disclosed—Production is included in "Other States."
6/ Includes varying states for each product. Alaska & Hawaii included in "Other States" for all products.
— No Production

Prepared by the International Ice Cream Association from data published by the U.S. Department of Agriculture.

## FIVE LEADING STATES IN 1989
## PRODUCTION OF ICE CREAM AND RELATED PRODUCTS (HARD & SOFT)




*NOTE: Data for these states do not include frozen yogurt or mellorine type products.*

## PRODUCTION OF ICE CREAM AND RELATED PRODUCTS
## FIVE LEADING STATES, 1989

| State | Ice Cream | Ice Milk | Sherbet | Water Ices | Total 1/ |
|---|---|---|---|---|---|
| | | (Thousand Gallons) | | | |
| California | 107,758 | 42,262 | 5,208 | 2,778 | 171,150 |
| Pennsylvania | 73,583 | 23,065 | 4,645 | 2,408 | 103,701 |
| Texas | 46,368 | 21,639 | 2,250 | 2,977 | 73,334 |
| New York | 46,507 | 13,249 | 2,456 | 5,006 | 67,218 |
| Minnesota | 38,975 | 18,563 | 2,313 | 2/ | 59,851 |
| Total Five States | 313,191 | 118,778 | 16,872 | 13,169 | 475,254 |
| Percent of U.S. Total | 37.7% | 31.5% | 32.3% | 27.6% | 35.2% 1/ |

1/ Includes mellorine-type and other frozen products in addition to product categories shown separately. Does not include frozen yogurt. Individual state data for frozen yogurt are not available. "Percent of U.S. total" compares state totals to U.S. total for all frozen dairy desserts except frozen yogurt.

2/ State data not shown when less than 3 plants reported or individual operations might be disclosed.

Prepared by the International Ice Cream Association from data published by the U.S. Department of Agriculture.

## Definitions

### Selected Frozen Desserts

ICE CREAM is a frozen food made from a mixture of dairy products, such as milk, cream and nonfat milk, combined with sugars, flavorings, fruits, nuts, etc. Ice cream which contains at least 1.4% egg yolks is called French ice cream or frozen custard. Ice cream and french ice cream contain a minimum of 10% milkfat and weigh not less than 4.5 pounds per gallon.

ICE MILK is a frozen dessert which is similar to ice cream except that it contains between 2% to 7% milkfat.

SHERBET, both fruit sherbet and those flavored with flavors other than fruit, contain between 1% to 2% milkfat and weigh not less than 6 pounds per gallon.

WATER ICES, both fruit ices and those flavored with flavors other than fruit, contain no dairy ingredients and weigh not less than 6 pounds per gallon.

MELLORINE is a frozen dessert similar to ice milk in which the milkfat is replaced, in whole or in part, with vegetable fat and the minimum fat content is 6%.

## Nutrition Highlights 1/

| | Calories | Protein g. | Carbohydrate g. | Fat g. | Vitamin A I.U. | Calcium mg. | Phosphorus mg. | Riboflavin mg. |
|---|---|---|---|---|---|---|---|---|
| Vanilla Ice Cream (10% fat) | 135 | 2.4 | 15.9 | 7.2 | 271 | 88 | 67 | .164 |
| *% U.S. RDA 2/* | | *5.3%* | | | *5.4%* | *8.8%* | *6.7%* | *9.6%* |
| Vanilla Ice Cream (16% fat) | 175 | 2.1 | 16.0 | 11.8 | 448 | 76 | 58 | .141 |
| *% U.S. RDA 2/* | | *4.6%* | | | *8.9%* | *7.6%* | *5.8%* | *8.2%* |
| Vanilla Ice Milk (4% fat) | 92 | 2.6 | 14.5 | 2.8 | 107 | 88 | 64 | .173 |
| *% U.S. RDA 2/* | | *5.7%* | | | *2.1%* | *8.8%* | *6.4%* | *10.1%* |
| Orange Sherbet (2% fat) | 135 | 1.1 | 29.4 | 1.9 | 93 | 52 | 37 | .045 |
| *% U.S. RDA 2/* | | *2.4%* | | | *1.8%* | *5.2%* | *3.7%* | *2.6%* |

1/ Values presented per ½ cup (approximately 4 fluid ounces). Source: Calculated from USDA Agricultural Handbook 8-1 (November 1976) data.

2/ United States Recommended Daily Allowance.

## FROZEN DESSERTS INDUSTRY
## EMPLOYEES, WAGES AND VALUE OF SHIPMENTS, 1963-1989

| Year | All Employees 1/ | | Production Workers 1/ | | Wages 1/ | Value of Product Shipments 2/ |
|---|---|---|---|---|---|---|
| | Number | Payroll | Number | Manhours | | |
| | Thousands | Million Dollars | Thousands | Millions | Million Dollars | Million Dollars |
| 1963 | 29.6 | 162.8 | 15.6 | 32.5 | 76.6 | 1,210.0 |
| 1967 | 24.6 | 156.4 | 13.8 | 27.2 | 77.2 | 1,273.6 |
| 1968 | 23.7 | 158.2 | 13.2 | 26.6 | 79.8 | 1,330.0 |
| 1969 | 22.7 | 159.2 | 12.6 | 25.4 | 80.6 | 1,334.8 |
| 1970 | 24.1 | 166.8 | 13.9 | 26.1 | 85.9 | 1,343.2 |
| 1971 | 22.6 | 173.5 | 12.8 | 25.1 | 87.7 | 1,389.0 |
| 1972 | 21.1 | 184.7 | 12.0 | 23.5 | 94.7 | 1,519.4 |
| 1973 | 21.3 | 195.9 | 12.1 | 24.1 | 100.0 | 1,639.5 |
| 1974 | 21.3 | 196.5 | 11.8 | 22.9 | 108.0 | 1,787.9 |
| 1975 | 20.2 | 208.5 | 11.1 | 22.0 | 116.4 | 2,012.9 |
| 1976 | 20.3 | 223.6 | 11.3 | 22.3 | 125.3 | 2.063.3 |
| 1977 | 19.1 | 247.0 | 11.4 | 22.7 | 130.1 | 2.229.4 |
| 1978 | 18.5 | 252.5 | 11.3 | 21.9 | 136.6 | 2,397.2 |
| 1979 | 19.9 | 277.4 | 12.3 | 24.3 | 151.9 | 2,733.2 |
| 1980 | 19.6 | 288.6 | 12.3 | 23.7 | 163.0 | 3,041.5 |
| 1981 | 20.1 | 325.6 | 12.0 | 23.0 | 167.1 | 3,322.1 |
| 1982 | 17.8 | 313.5 | 11.1 | 20.9 | 177.3 | 3,281.1 |
| 1983 | 17.7 | 349.7 | 9.5 | 19.7 | 174.0 | 3,414.5 |
| 1984 | 20.0 | 367.2 | 12.2 | 23.1 | 200.4 | 3,809.9 |
| 1985 | 18.9 | 384.7 | 11.7 | 21.5 | 199.8 | 3,881.8 |
| 1986 | 18.2 | 383.2 | 11.7 | 22.3 | 219.0 | 3,922.1 |
| 1987 | 20.3 | 441.0 | 13.8 | 26.9 | 269.0 | 4,189.0 |
| 1988[3] | 19.8 | 445.2 | 13.5 | 26.9 | 278.4 | 4,091.0 |
| 1989[3] | 19.6 | 456.0 | 13.5 | 27.0 | 289.0 | 4,150.0 |

1/ Data for plants with ice cream and other frozen desserts as the leading product group in value of shipments.

2/ Includes value of shipments of ice cream and other frozen desserts by plants classified in other industries, such as fluid milk.

3/ Estimated by International Ice Cream Association.

Source: Bureau of the Census, U.S. Department of Commerce (for data from 1958-1987).

FROZEN DESSERTS INDUSTRY
CAPITAL EXPENDITURES FOR NEW PLANTS AND EQUIPMENT
1958-1988

| Year | Total | For Plants | Share of Total | For Equipment | Share of Total |
|---|---|---|---|---|---|
| | Million Dollars | Million Dollars | Percent | Million Dollars | Percent |
| 1958 | 26.1 | 5.1 | 19.5 | 21.0 | 80.5 |
| 1963 | 31.9 | 8.1 | 25.4 | 23.8 | 74.6 |
| 1967 | 26.6 | 5.7 | 21.4 | 20.9 | 78.6 |
| 1968 | 22.1 | 2.8 | 12.7 | 19.3 | 87.3 |
| 1969 | 30.3 | 5.6 | 18.5 | 24.7 | 81.5 |
| 1970 | 43.7 | 15.8 | 36.2 | 27.9 | 63.8 |
| 1971 | 28.0 | 5.7 | 20.4 | 22.3 | 79.6 |
| 1972 | 35.8 | 7.5 | 20.9 | 29.3 | 79.1 |
| 1973 | 29.2 | 9.7 | 33.2 | 19.5 | 66.8 |
| 1974 | 27.8 | 6.2 | 22.3 | 21.6 | 77.7 |
| 1975 | 37.2 | 10.1 | 27.2 | 27.0 | 72.6 |
| 1976 | 43.2 | 11.9 | 27.5 | 31.3 | 72.5 |
| 1977 | 56.8 | 19.4 | 33.4 | 38.7 | 66.6 |
| 1978 | 56.4 | 12.6 | 22.3 | 43.8 | 77.7 |
| 1979 | 46.3 | 12.8 | 27.6 | 33.5 | 72.4 |
| 1980 | 46.8 | 11.1 | 23.7 | 35.7 | 76.3 |
| 1981 | 41.8 | 6.1 | 14.6 | 35.7 | 85.4 |
| 1982 | 79.9 | 16.3 | 20.4 | 63.6 | 79.6 |
| 1983 | 75.5 | 9.3 | 12.3 | 66.2 | 87.7 |
| 1984 | 84.0 | 17.3 | 20.6 | 66.7 | 79.4 |
| 1985 | 1/ | 1/ | 1/ | 1/ | 1/ |
| 1986 | 105.4 | 19.6 | 18.6 | 85.8 | 81.4 |
| 1987 | 111.3 | 27.9 | 25.1 | 83.4 | 74.9 |
| 1988[2] | 114.0 | 28.5 | 25.0 | 85.5 | 75.0 |

1/ Withheld to avoid disclosing data for individual companies.

2/ Estimated by International Ice Cream Association.

Source: (for data from 1954-1987) Bureau of the Census, U.S. Department of Commerce.

## ICE CREAM AND RELATED PRODUCTS
## TOTAL AND PER CAPITA PRODUCTION (HARD AND SOFT)
### 1879-1989

| YEAR | ICE CREAM | | ICE MILK 1/ | | FROZEN YOGURT 2/ | | SHERBET | | WATER ICES 3/ | | OTHER FROZEN DAIRY PRODUCTS 4/ | | TOTAL FROZEN PRODUCTS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 5/ 1,000 Gallons | Per Capita Quarts |
| 1879 | 144 | 0.01 | | | | | | | | | | | 144 | 0.01 |
| 1889 | 851 | 0.06 | | | | | | | | | | | 851 | 0.06 |
| 1899 | 5,021 | 0.27 | | | | | | | | | | | 5,021 | 0.27 |
| 1909 | 29,637 | 1.31 | | | | | | | | | | | 29,637 | 1.31 |
| 1919 | 152,982 | 5.86 | | | | | | | | | | | 152,982 | 5.86 |
| 1920 | 171,248 | 6.43 | | | | | | | | | | | 171,248 | 6.43 |
| 1930 | 255,439 | 8.30 | | | | | | | | | | | 255,439 | 8.30 |
| 1940 | 318,088 | 9.64 | 10,457 | 0.32 | | | 8,089 | 0.24 | | | 2,910 | 0.09 | 339,544 | 10.29 |
| 1950 | 554,351 | 14.66 | 36,870 | 0.98 | | | 17,018 | 0.45 | 18,299 | 0.48 | 8,230 | 0.22 | 634,768 | 16.79 |
| 1955 | 628,525 | 15.30 | 90,185 | 2.20 | | | 37,365 | 0.91 | 28,158 | 0.69 | 35,701 | 0.86 | 819,934 | 19.96 |
| 1960 | 699,605 | 15.55 | 145,177 | 3.23 | | | 40,734 | 0.91 | 33,361 | 0.74 | 50,127 | 1.11 | 969,004 | 21.54 |
| 1965 | 757,000 | 15.65 | 230,992 | 4.77 | | | 45,449 | 0.94 | 37,119 | 0.77 | 60,105 | 1.23 | 1,130,215 | 23.36 |
| 1970 | 761,732 | 14.95 | 286,663 | 5.63 | | | 48,887 | 0.96 | 37,265 | 0.73 | 58,597 | 1.15 | 1,193,144 | 23.42 |
| 1975 | 836,552 | 15.53 | 298,789 | 5.55 | | | 48,542 | 0.90 | 38,230 | 0.71 | 41,100 | 0.76 | 1,263,213 | 23.45 |
| 1980 | 829,798 | 14.61 | 293,384 | 5.17 | | | 45,187 | 0.80 | 33,386 | 0.59 | 23,468 | 0.41 | 1,225,223 | 21.58 |
| 1985 | 901,449 | 15.10 | 301,312 | 5.05 | | | 48,206 | 0.81 | 49,842 | 0.83 | 60,165 | 1.01 | 1,360,974 | 22.80 |
| 1986 | 923,597 | 15.32 | 314,673 | 5.22 | | | 49,679 | 0.82 | 50,937 | 0.85 | 43,443 | 0.72 | 1,382,329 | 22.93 |
| 1987 | 928,356 | 15.26 | 327,561 | 5.38 | | | 49,998 | 0.82 | 47,098 | 0.77 | 48,835 | 0.81 | 1,401,848 | 23.04 |
| 1988 | 882,079 | 14.35 | 354,831 | 5.77 | | | 52,175 | 0.85 | 50,362 | 0.82 | 48,982 | 0.80 | 1,388,429 | 22.38 |
| 1989 | 831,159 | 13.40 | 376,507 | 6.07 | 82,454 | 1.33 | 52,197 | 0.84 | 47,657 | 0.77 | 43,324 | 0.70 | 1,433,298 | 23.10 |

1/ Includes freezer-made milkshake.

2/ Frozen yogurt production data was not collected by USDA prior to 1989.

3/ Also contains sorbet, frozen juice bars and gelatin pops.

4/ Includes nonfat dairy desserts, mellorine-type and other vegetable fat products, pudding pops, tofu-based products, and miscellaneous frozen dairy desserts.

5/ Data from 1879 to 1919 indicate only the estimated trend of production. Frozen yogurt included in total beginning in 1989.

Prepared by the International Ice Cream Association from data published by the U.S. Department of Agriculture.

## PRODUCTION OF MIX FOR FROZEN PRODUCTS (HARD AND SOFT) BY STATES AND REGIONS — 1988

| STATE & REGION | ICE CREAM MIX | ICE MILK MIX | SHERBET MIX | FROZEN YOGURT MIX | TOTAL MIX FOR FROZEN PRODUCTS* |
|---|---|---|---|---|---|
| | (Thousand Gallons) | | | | |
| NEW ENGLAND | **19,403** | — | **1,399** | **54** | **20,856** |
| Maine | — | — | — | — | 1/ |
| New Hampshire | — | — | — | — | 1/ |
| Vermont | — | — | — | — | 1/ |
| Massachusetts | 19,403 | 1/ | 1,399 | — | 20,802 |
| Rhode Island | — | — | — | — | 1/ |
| Connecticut | — | — | — | — | 1/ |
| MID ATLANTIC | **76,616** | **14,691** | **4,702** | **8,361** | **100,300** |
| New York | 24,198 | 3,456 | 1,746 | — | 29,400 |
| New Jersey | 14,022 | — | — | — | 14,022 |
| Pennsylvania | 38,396 | 11,235 | 2,956 | — | 52,587 |
| E. N. CENTRAL | **68,647** | **46,874** | **5,753** | **7,007** | **128,281** |
| Ohio | 17,460 | 7,897 | 1,468 | — | 26,825 |
| Indiana | 12,196 | 13,710 | 1,212 | — | 27,118 |
| Illinois | 14,792 | 14,511 | 1,114 | — | 30,417 |
| Michigan | 12,937 | 7,574 | 1,173 | — | 21,684 |
| Wisconsin | 11,262 | 3,182 | 786 | — | 15,230 |
| W. N. CENTRAL | **39,145** | **17,290** | **4,297** | **6,953** | **67,685** |
| Minnesota | 16,202 | — | 1,319 | — | 17,521 |
| Iowa | 12,712 | 5,704 | 2,095 | — | 20,511 |
| Missouri | 6,372 | 4,235 | 561 | — | 11,168 |
| North Dakota | 786 | 944 | 61 | — | 1,791 |
| South Dakota | — | — | — | — | 1/ |
| Nebraska | — | 1,857 | — | — | 1,857 |
| Kansas | 3,073 | 4,550 | 261 | — | 7,884 |
| SOUTH ATLANTIC | **60,986** | **26,859** | **4,013** | **10,161** | **102,019** |
| Delaware | — | — | — | — | 1/ |
| Maryland & D.C. | 9,618 | — | 1/ | — | 9,618 |
| Virginia | 6,647 | 9,067 | 571 | — | 16,285 |
| West Virginia | — | 1/ | — | — | 1/ |
| North Carolina | 17,397 | 4,028 | 986 | — | 22,411 |
| South Carolina | 7,436 | 2,501 | 838 | — | 10,775 |
| Georgia | 5,355 | 1/ | 1/ | — | 5,355 |
| Florida | 14,533 | 11,263 | 1,618 | — | 27,414 |
| SOUTH CENTRAL | **55,637** | **31,064** | **4,368** | **10,841** | **101,910** |
| Kentucky | — | 2,770 | — | — | 2,770 |
| Tennessee | 9,856 | 4,238 | 619 | — | 14,713 |
| Alabama | 11,516 | 5,795 | 1,653 | — | 18,964 |
| Mississippi | 1/ | 1,299 | 1/ | — | 1,299 |
| Arkansas | 2,626 | 968 | 154 | — | 3,748 |
| Louisiana | — | — | — | — | 1/ |
| Oklahoma | 6,172 | 2,319 | 526 | — | 9,017 |
| Texas | 25,467 | 13,675 | 1,416 | — | 40,558 |
| MOUNTAIN | **10,531** | **7,248** | **690** | **747** | **19,216** |
| Montana | 809 | 619 | 52 | — | 1,480 |
| Idaho | — | — | — | — | 1/ |
| Wyoming | — | — | — | — | 1/ |
| Colorado | 5,611 | 4,220 | 318 | — | 10,149 |
| New Mexico | — | — | — | — | 1/ |
| Arizona | — | 1/ | — | — | 1/ |
| Utah | 4,111 | 2,409 | 320 | — | 6,840 |
| Nevada | — | — | — | — | 1/ |
| PACIFIC | **65,778** | **32,533** | **4,766** | **10,848** | **107,201** |
| Washington | 8,296 | 4,121 | 1,078 | — | 13,495 |
| Oregon | 4,061 | 2,783 | 217 | — | 7,061 |
| California | 53,421 | 25,629 | 3,471 | — | 82,521 |
| OTHER STATES 2/ | 34,247 | 57,047 | 3,843 | 54,972 | 161,429 |
| UNITED STATES | 430,990 | 233,606 | 33,831 | 54,972 | 764,719 |

1/ State data not shown when less than 3 plants reported or individual operations might be disclosed, included in "Other States" with Alaska and Hawaii.
2/ Includes varying states for each product.
3/ Frozen yogurt data for individual states not reported due to reasons of confidentiality

*Equals sum of products shown individually. Products not reported separately for individual states are included in total for "Other States."
Note: Mix for mellorine-type products included in total mix for "Other States" and the U.S.
— No Production.

Prepared by International Ice Cream Association from data published by U.S. Department of Agriculture.

## MONTHLY PRODUCTION OF ICE CREAM AND RELATED PRODUCTS (HARD AND SOFT)
1987-1989

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | (Thousand Gallons) | | | | | | | |
| | | | | | | **ALL FROZEN PRODUCTS 1/** | | | | | | | |
| 1987 | 88,567 | 101,705 | 121,106 | 124,331 | 132,405 | 151,336 | 150,593 | 135,832 | 118,334 | 99,889 | 87,756 | 89,994 | 1,401,848 |
| 1988 | 81,619 | 97,428 | 123,475 | 119,326 | 131,723 | 152,296 | 143,150 | 146,511 | 118,230 | 98,997 | 89,009 | 86,665 | 1,388,429 |
| 1989 | 92,253 | 102,504 | 129,588 | 122,568 | 142,469 | 153,160 | 142,894 | 143,165 | 116,181 | 103,957 | 96,415 | 88,144 | 1,433,298 |
| | | | | | | **ICE CREAM** | | | | | | | |
| 1987 | 61,174 | 70,221 | 81,015 | 81,829 | 85,537 | 97,181 | 96,776 | 88,535 | 79,094 | 66,418 | 59,539 | 61,037 | 928,356 |
| 1988 | 56,668 | 65,470 | 79,763 | 74,899 | 81,565 | 94,028 | 88,669 | 89,595 | 74,450 | 63,104 | 57,484 | 56,384 | 882,079 |
| 1989 | 57,467 | 60,805 | 75,110 | 68,867 | 80,433 | 85,781 | 81,090 | 81,523 | 67,102 | 61,310 | 57,785 | 53,886 | 831,159 |
| | | | | | | **ICE MILK** | | | | | | | |
| 1987 | 18,940 | 21,417 | 27,195 | 28,887 | 31,456 | 36,435 | 36,974 | 32,587 | 27,749 | 24,760 | 20,387 | 20,774 | 327,561 |
| 1988 | 17,926 | 22,075 | 29,550 | 29,675 | 34,489 | 39,470 | 36,744 | 41,096 | 31,673 | 26,223 | 23,596 | 22,314 | 354,831 |
| 1989 | 22,439 | 24,344 | 31,942 | 32,128 | 38,267 | 40,874 | 37,987 | 39,459 | 32,135 | 28,391 | 25,706 | 22,835 | 376,507 |
| | | | | | | **SHERBET** | | | | | | | |
| 1987 | 3,154 | 3,393 | 4,060 | 4,727 | 4,796 | 5,809 | 5,629 | 4,928 | 4,104 | 3,129 | 2,820 | 3,449 | 49,998 |
| 1988 | 2,769 | 3,437 | 4,716 | 4,699 | 4,787 | 6,050 | 5,895 | 5,700 | 4,234 | 3,607 | 3,022 | 3,259 | 52,175 |
| 1989 | 3,391 | 3,709 | 4,902 | 4,481 | 5,543 | 5,980 | 5,335 | 5,082 | 4,100 | 3,298 | 3,152 | 3,224 | 52,197 |
| | | | | | | **WATER ICES** | | | | | | | |
| 1987 | 2,769 | 3,389 | 4,826 | 4,660 | 5,795 | 6,498 | 5,871 | 4,924 | 3,049 | 2,053 | 1,785 | 1,479 | 47,098 |
| 1988 | 2,105 | 3,152 | 4,808 | 5,476 | 5,897 | 6,867 | 6,555 | 5,561 | 3,496 | 2,530 | 1,993 | 1,922 | 50,362 |
| 1989 | 3,121 | 4,226 | 4,754 | 5,172 | 5,704 | 5,941 | 5,589 | 4,391 | 2,829 | 2,306 | 1,873 | 1,751 | 47,657 |
| | | | | | | **FROZEN YOGURT 2/** | | | | | | | |
| 1987 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1988 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1989 | 3,418 | 5,535 | 7,895 | 7,496 | 7,536 | 8,679 | 9,081 | 9,690 | 6,998 | 6,186 | 5,428 | 4,512 | 82,454 |

1/ Includes all other frozen dairy products in addition to those reported separately. Frozen yogurt included in total beginning in 1989.
2/Data on frozen yogurt not available prior to 1989.

Prepared by International Ice Cream Association from data published by U.S. Department of Agriculture.

PRODUCTION OF ICE CREAM AND RELATED PRODUCTS (HARD AND SOFT)
BY REGIONS - 1989

| REGION | ICE CREAM | ICE MILK 1/ | SHERBET | WATER ICES 2/ | FROZEN YOGURT 3/ | DAIRY PRODUCTS 4/ | TOTAL FROZEN PRODUCTS |
|---|---|---|---|---|---|---|---|
| | | | (Thousand Gallons) | | | | |
| New England | 63,283 | 18,749 | 3,404 | 2,090 | 4,600 | 931 | 93,057 |
| Mid Atlantic | 138,322 | 40,876 | 7,352 | 7,652 | 10,241 | 8,274 | 212,717 |
| E. N. Central | 128,446 | 72,169 | 9,592 | 5,725 | 14,586 | 2,977 | 233,495 |
| W. N. Central | 94,531 | 47,096 | 6,602 | 8,889 | 9,326 | 5,369 | 171,813 |
| South Atlantic | 117,396 | 59,960 | 8,582 | 12,039 | 11,566 | 1,247 | 210,790 |
| South Central | 116,906 | 57,500 | 7,084 | 5,415 | 11,521 | 10,180 | 208,606 |
| Mountain | 37,678 | 21,618 | 2,319 | 1,832 | 5,740 | 404 | 69,591 |
| Pacific | 132,538 | 56,010 | 6,899 | 3,636 | 14,874 | 13,942 | 227,899 |
| United States 5/ | 831,159 | 376,507 | 52,197 | 47,657 | 82,454 | 43,324 | 1,433,298 |

1/ Includes freezer-made milkshake.

2/ Also contains sorbet, frozen juice bars and gelatin pops.

3/ Regional totals for frozen yogurt estimated by IICA.

4/ Includes nonfat dairy desserts, mellorine-type and other vegetable fat products, pudding pops, tofu-based products and miscellaneous frozen dairy desserts.

5/ Alaska & Hawaii included in U.S. totals only.

Prepared by International Ice Cream Association from data released by U.S. Department of Agriculture.

## ICE CREAM AND RELATED PRODUCTS PER CAPITA PRODUCTION (HARD AND SOFT) BY REGIONS, 1970-1989

| Product & Year | New England | Mid Atlantic | E.N. Central | W. N. Central | South Atlantic | South Central | Mountain | Pacific | United States |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (Quarts) | | | | | |
| **Ice Cream** | | | | | | | | | |
| 1970 | 20.82 | 17.96 | 16.86 | 17.94 | 11.36 | 10.18 | 11.90 | 14.62 | 14.96 |
| 1975 | 24.72 | 16.27 | 17.40 | 19.23 | 12.33 | 11.71 | 10.96 | 15.77 | 15.53 |
| 1980 | 21.83 | 16.19 | 16.10 | 19.15 | 11.48 | 10.78 | 11.93 | 15.18 | 14.61 |
| 1985 | 22.88 | 16.83 | 15.59 | 21.36 | 12.03 | 12.11 | 11.61 | 15.57 | 15.10 |
| 1986 | 23.25 | 17.10 | 15.51 | 22.43 | 12.15 | 12.43 | 11.99 | 15.65 | 15.32 |
| 1987 | 23.42 | 16.96 | 15.31 | 23.44 | 11.69 | 12.51 | 12.01 | 15.44 | 15.26 |
| 1988 | 22.11 | 16.14 | 14.08 | 21.30 | 11.02 | 11.67 | 12.31 | 14.77 | 14.35 |
| 1989 | 19.44 | 14.67 | 12.15 | 21.18 | 10.89 | 11.03 | 9.72 | 13.84 | 13.39 |
| **Ice Milk** | | | | | | | | | |
| 1970 | 3.65 | 3.32 | 5.89 | 8.24 | 6.66 | 5.50 | 6.56 | 6.55 | 5.63 |
| 1975 | 5.34 | 3.40 | 6.49 | 7.70 | 5.86 | 5.14 | 5.18 | 5.95 | 5.55 |
| 1980 | 4.72 | 3.11 | 6.14 | 7.34 | 5.49 | 4.39 | 6.23 | 5.48 | 5.17 |
| 1985 | 4.40 | 2.93 | 5.21 | 8.57 | 5.05 | 5.12 | 5.83 | 5.23 | 5.05 |
| 1986 | 4.48 | 3.49 | 5.74 | 8.11 | 5.29 | 5.05 | 6.10 | 5.10 | 5.22 |
| 1987 | 4.96 | 3.69 | 5.81 | 9.35 | 5.01 | 5.33 | 5.96 | 5.16 | 5.38 |
| 1988 | 5.56 | 3.99 | 6.18 | 9.79 | 5.07 | 5.39 | 7.08 | 6.03 | 5.76 |
| 1989 | 5.76 | 4.33 | 6.82 | 10.55 | 5.56 | 5.42 | 5.57 | 5.85 | 6.07 |
| **Total Frozen Products 1/** | | | | | | | | | |
| 1970 | 26.55 | 23.06 | 25.06 | 28.46 | 19.48 | 20.48 | 20.06 | 25.64 | 23.43 |
| 1975 | 31.59 | 21.19 | 25.92 | 28.38 | 19.95 | 20.35 | 17.26 | 24.56 | 23.45 |
| 1980 | 28.41 | 20.83 | 24.13 | 29.24 | 18.53 | 17.38 | 19.29 | 22.44 | 21.58 |
| 1985 | 29.13 | 22.02 | 22.74 | 33.28 | 18.99 | 19.73 | 19.31 | 23.18 | 22.38 |
| 1986 | 29.70 | 22.83 | 23.24 | 33.96 | 20.31 | 19.91 | 19.73 | 23.14 | 22.93 |
| 1987 | 29.95 | 23.21 | 23.11 | 36.69 | 19.24 | 20.02 | 20.03 | 23.15 | 23.04 |
| 1988 | 29.68 | 22.66 | 22.33 | 35.60 | 18.31 | 19.34 | 21.15 | 23.65 | 22.57 |
| 1989 | 28.59 | 22.55 | 22.08 | 38.49 | 19.56 | 19.68 | 17.94 | 23.81 | 23.10 |

1/ Includes ice cream, ice milk, sherbet, mellorine-type products, water ices and other frozen dairy products through 1988. Frozen yogurt data included in 1989.

Prepared by the International Ice Cream Association from production data released by the U.S. Department of Agriculture and population estimates from Bureau of the Census, U.S. Department of Commerce.

## 1989 PRODUCTION OF ICE CREAM, ICE MILK AND TOTAL FROZEN PRODUCTS WITH PERCENTAGE CHANGE FROM 1988, BY REGION

| | ICE CREAM | | ICE MILK | | TOTAL FROZEN PRODUCTS 1/ | |
|---|---|---|---|---|---|---|
| | Total 1,000 Gallons | % Change from 1988 | Total 1,000 Gallons | % Change from 1988 | Total 1,000 Gallons | % Change from 1988 |
| New England | 62,283 | – 13.1 | 18,749 | + 4.1 | 93,057 | n.a. |
| Mid Atlantic | 138,322 | – 8.9 | 40,876 | + 8.8 | 212,717 | n.a. |
| East North Central | 128,446 | – 13.4 | 72,169 | + 10.9 | 233,495 | n.a. |
| West North Central | 94,531 | 0.0 | 47,096 | + 8.3 | 171,813 | n.a. |
| South Atlantic | 117,396 | + 0.4 | 59,960 | + 11.6 | 210,790 | n.a. |
| South Central | 116,906 | – 5.1 | 57,500 | + 1.1 | 208,606 | n.a. |
| Mountain | 37,678 | – 8.2 | 21,618 | – 8.3 | 69,591 | n.a. |
| Pacific | 132,538 | + 0.5 | 56,010 | + 4.1 | 227,899 | n.a. |
| UNITED STATES 2/ | 831,159 | – 5.8 | 376,507 | + 6.1 | 1,433,298 | n.a. |

1/ Includes ice cream, ice milk, frozen yogurt, sherbet, water ices, mellorine-type products and other frozen dairy products. Regional data on frozen yogurt production for 1989 estimated by the International Ice Cream Association.

2/ Alaska & Hawaii included in U.S. totals only.

n.a. - Since frozen yogurt data was not included in 1988 total frozen products, a direct comparison between 1989 and 1988 is not available.

Prepared by International Ice Cream Association from data released by U.S. Department of Agriculture.

## NUMBER OF PLANTS PRODUCING ICE CREAM AND RELATED PRODUCTS
1962-1989

| Year | Ice Cream | | Ice Milk | Sherbet | Water Ices | Mellorine-Type Products |
|---|---|---|---|---|---|---|
| | Including Counter Freezers | Excluding Counter Freezers | | | | |
| 1962 | 14,541 | - | 30,919 | 3,764 | 2,353 | 1,364 |
| 1963 | 13,915 | 2,476 | 33,229 | 3,625 | 2,650 | 1,253 |
| 1964 | 13,106 | - | 34,485 | 3,395 | 2,691 | 1,313 |
| 1965 | 12,584 | - | 35,181 | 3,452 | 2,852 | 1,280 |
| 1966 | 12,063 | - | 36,158 | 3,580 | 2,682 | 1,308 |
| 1967 | 11,452 | - | 37,312 | 3,191 | 2,773 | 1,363 |
| 1968 | 11,228 | 1,873 | 39,474 | 3,108 | 2,854 | 1,792 |
| 1969 | 1/ | 1,739 | 1,160 2/ | 1,176 2/ | 1/ | 199 2/ |
| 1970 | | 1,628 | 1,088 | 1,122 2/ | 377 | 203 |
| 1971 | | 1,520 | 1,008 | 1,065 | 335 | 177 |
| 1972 | | 1,451 | 984 | 1,022 | 363 | 180 |
| 1973 | | 1,330 | 902 | 976 | 321 | 154 |
| 1974 | | 1,239 | 824 | 904 | 299 | 146 |
| 1975 | | 1,167 | 746 | 850 | 281 | 124 |
| 1976 | | 1,124 | 718 | 812 | 281 | 119 |
| 1977 | | 1,095 | 702 | 782 | 273 | 110 |
| 1978 | | 1,062 | 670 | 744 | 263 | 101 |
| 1979 | | 990 | 604 | 690 | 234 | 89 |
| 1980 | | 949 | 576 | 654 | 220 | 76 |
| 1981 | | 895 | 548 | 614 | 212 | 74 |
| 1982 | | 884 | 524 | 608 | 212 | 67 |
| 1983 | | 862 | 495 | 594 | 201 | 71 |
| 1984 | | 853 | 477 | 570 | 199 | 57 |
| 1985 | | 865 | 455 | 562 | 201 | 60 |
| 1986 | | 845 | 436 | 542 | 220 | 54 |
| 1987 | | 829 | 430 | 528 | 204 | 45 |
| 1988 | | 765 | 385 | 485 | 198 | 33 |
| 1989 | | 729 | 369 | 460* | 187 | 1/ |

1/ Not available.

2/ After 1968, number of plants producing hard product. Number of counter freezers not available.

*Estimated by IICA.

Note: The number of plants producing frozen yogurt in 1989 is not available.

Prepared by the International Ice Cream Association from data published by the U.S. Dept. of Agriculture.

## HARD FROZEN PRODUCTION — TOTAL AND PER CAPITA
## ICE CREAM AND RELATED PRODUCTS
### 1965 - 1989

| YEAR | ICE CREAM | | ICE MILK | | SHERBET | | OTHER FROZEN PRODUCTS 1/ | | TOTAL PRODUCTS 2/ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts |
| 1965 | 741,024 | 15.32 | 126,146 | 2.60 | 44,954 | 0.93 | 50,143 | 1.04 | 962,267 | 19.89 |
| 1970 | 736,741 | 14.47 | 134,240 | 2.64 | 47,643 | 0.94 | 40,775 | 0.80 | 959,399 | 18.85 |
| 1975 | 803,494 | 14.92 | 116,609 | 2.17 | 45,996 | 0.85 | 23,724 | 0.44 | 989,823 | 18.38 |
| 1980 | 801,876 | 14.12 | 83,584 | 1.47 | 43,745 | 0.77 | 9,927 | 0.17 | 939,132 | 16.53 |
| 1985 | 861,766 | 14.44 | 61,985 | 1.04 | 45,934 | 0.77 | 7,133 | 0.12 | 976,818 | 16.37 |
| 1986 | 886,702 | 14.71 | 67,733 | 1.12 | 47,231 | 0.78 | 7,559 | 0.13 | 1,009,225 | 16.74 |
| 1987 | 886,565 | 14.57 | 74,062 | 1.22 | 46,826 | 0.78 | 7,791 | 0.13 | 1,015,244 | 16.68 |
| 1988 | 843,992 | 13.73 | 95,086 | 1.54 | 49,180 | 0.80 | 8,342 | 0.14 | 996,600 | 16.22 |
| 1989 | 788,933 | 12.71 | 120,266 | 1.94 | 48,546 | 0.78 | 28,252 | 0.46 | 985,997 | 15.89 |

1/ Includes mellorine-type products 1965-1988. Also includes frozen yogurt beginning in 1989. Note: Hard frozen yogurt production estimated by IICA.

2/ Includes ice cream, ice milk, sherbet and mellorine-type products 1965-1988. Also includes frozen yogurt beginning in 1989. Production of hard frozen yogurt estimated at 18.8 million gallons for 1989.

Prepared by the International Ice Cream Association from data released by the U.S. Department of Agriculture.

# Industry Sales Highlights

### Total Industry Sales

IICA estimates that total retail sales of ice cream and related frozen dessert products increased marginally in 1989 and approached $9.2 billion. Consumption of frozen desserts at home in 1989 is estimated at $4.7 billion while away from home consumption approximated $4.5 billion.

Significant shifts between and within product categories that emerged in 1988 continued in 1989. Most notable was the dramatic gain of more than 50% in total frozen yogurt production during 1989. Hard ice milk also experienced a significant 26% increase for the year. This increase in hard ice milk production offset the slight decline in soft ice milk and drove a 6% gain in total ice milk production for the year.

PACKAGED ICE CREAM, ICE MILK
QUALITY SEGMENTS — 1989

| | % of Packaged Ice Cream Dollar Sales | % of Packaged Ice Milk Dollar Sales |
|---|---|---|
| Superpremium | 10.7 | 0.4 |
| Premium | 39.5 | 54.4 |
| Regular | 38.5 | 36.4 |
| Economy | 11.3 | 8.7 |

Note: The source for the share of market data and dollar sales of packaged frozen desserts has changed for 1989 and these data are not directly comparable to 1988.

### PACKAGED ICE CREAM

Despite a 5% drop in packaged ice cream volume sold in 1989, overall dollar sales held steady at $2.1 billion.

This stability was provided by the superpremium ice cream segment. This segment actually showed a marginal gain in volume for 1989 with a corresponding increase in dollar volume of 4%. Dollar sales for the premium, regular and economy segments were down for the year.

### PACKAGED ICE MILK

Total retail sales for packaged ice milk showed a 34% gain in volume and a substantial 47% gain in dollar value for 1989.

Almost all of this gain was accounted for by the premium ice milk segment. Premium ice milk volume shot up 84% and corresponding dollar sales skyrocketed 79% for the year.

Total packaged ice milk sales exceeded $450 million for the year.

## PACKAGED FROZEN YOGURT

Packaged frozen yogurt volume nearly tripled during 1989. Dollar sales gained 175%. Dollar sales gains for packaged frozen yogurt lagged volume gains in 1989 since a significant amount of regular frozen yogurt was introduced into the market. Regular frozen yogurt increased its share of category to 10.2% in 1989, up from only 2.8% in 1988. Packaged frozen yogurt sales are projected by IICA to nearly triple again in 1990.

## FROZEN NOVELTIES

Supermarket sales of frozen novelties turned in a stable performance in 1989. While volume was marginally down, dollar sales held steady at nearly $1.4 billion. IICA estimates 1989 away from home consumption of novelties at nearly 1.8 billion, for total novelty sales approaching $3.2 billion for the year.

## COMMERCIAL FOOD SERVICE

The commercial food service sector accounts for about 90% of away from home consumption of ice cream and related products.

Total sales of commercial eating places increased 7% in 1989 and are projected to gain another 6.3% and exceed $156 billion in 1990.

While data on total sales of ice cream and related products in commercial eating places are not available, a separate breakout of ice cream and frozen custard stands shows that projected increases for this sector are keeping pace with the overall commercial food service industry. Ice cream and frozen custard stand sales are expected to increase 7.2% to $2.2 billion in 1989.

| | Estimated Sales, 1988 (millions of $) | Estimated Sales, 1989 (millions of $) | Projected Sales, 1990 (millions of $) | % Change 1990 / 1989 |
|---|---|---|---|---|
| Total Eating Places | $137,443 | $147,040 | $156,362 | + 6.4% |
| Restaurants, Lunchrooms | 70,134 | 73,235 | 77,190 | + 5.4 |
| Limited Menu Restaurants (Fast Foods) | 60,124 | 65,529 | 70,380 | + 7.5 |
| Commercial Cafeterias | 3,899 | 4,152 | 4,360 | + 5.0 |
| Social Caterers | 1,596 | 2,089 | 2,252 | + 7.8 |
| Ice Cream & Frozen Custard Stands | 1,690 | 2,034 | 2,180 | + 7.2 |

Source: National Restaurant Association

## ICE CREAM & FROZEN DESSERT INDUSTRY
### Key Profitability and Efficiency Ratios

| Median Ratios* | 1984 (%) | 1988 (%) | 1989 (%) |
|---|---|---|---|
| **Profitability** | | | |
| Return on Sales | 3.6 | 2.7 | 2.8 |
| Return on Assets | 10.8 | 4.9 | 4.8 |
| Return on Net Worth | 19.4 | 11.6 | 11.5 |
| **Efficiency** | | | |
| Assets to Sales | 33.6 | 36.3 | 36.5 |
| Sales to New Working Capital | 11.6 | 8.9 | 9.9 |

*Source: Dun & Bradstreet, *Industry Norms & Key Business Ratios*, 1984, 1988 and 1989. Data reported based on the median for establishments included in the surveys. Note that 97 establishments were included in the 1984 survey and 86 establishments in 1988 and 141 establishments in 1989. These data are not necessarily representative of the entire industry and the ratios may not be directly comparable over time due to the potential change in the sample from year to year. These data are, however, based on the most extensive annual survey conducted for individual industry breakouts.

### Definitions

**Profitability**

**Return on Sales** (Profit Margin) - Net profit after taxes divided by annual net sales. This ratio provides the profits earned per dollar of sales and is an indicator of not only the efficiency of the operation but also of the firm's ability to withstand adverse conditions.

**Return on Assets** - Net profit after taxes divided by total assets. This ratio is a key indicator of profitability of a firm.

**Return on Net Worth** (Return on Equity) - Net profit after tax divided by net worth. Generally, a relationship of at least 10 percent is regarded as a desirable objective for providing dividends plus funds for future growth.

**Efficiency**

**Assets to Sales** - Total assets divided by annual net sales. This ratio ties in sales and the total investment used to generate those sales.

**Sales to Net Working Capital** - Net sales divided by net working capital (current assets minus current liabilities). This ratio indicates whether a company is overtrading or, conversely, carrying more liquid assets than needed for its volume.

## FLAVORS — ICE CREAM

**(Hard Frozen)**

**Most Popular Flavors**

| | | | |
|---|---|---|---|
| 1. Vanilla | 29.0% | 11. Cherry | 1.8% |
| 2. Chocolate | 8.9 | 12. Chocolate Almond | 1.8 |
| 3. Butter Pecan | 5.3 | 13. Coffee | 1.6 |
| 4. Strawberry | 5.3 | 14. Rocky Road | 1.5 |
| 5. Neapolitan | 4.2 | 15. Chocolate Marshmallow | 1.3 |
| 6. Chocolate Chip | 3.9 | 16. Tin Roof Sundae | 1.2 |
| 7. French Vanilla | 3.8 | 17. Heavenly Hash | 0.9 |
| 8. Cookies & Cream | 3.6 | 18. Peppermint | 0.8 |
| 9. Vanilla Fudge/Ripple | 2.6 | 19. Almond | 0.8 |
| 10. Praline Pecan | 1.7 | 20. Mint Choc. Chip | 0.6 |
| | | All Others | 19.4 |
| | | | 100% |

## PACKAGED ICE CREAM

**(Hard Frozen)**

**Percent of Volume**

| Package Size | Economy | Regular | Premium | Super Premium | Total |
|---|---|---|---|---|---|
| Cup | 1% | 3% | 1% | *% | 1.8% |
| Pint | * | 3 | 7 | 30 | 4.4 |
| Quart | * | 1 | 4 | 13 | 2.0 |
| Half Gallon | 75 | 63 | 58 | 24 | 62.7 |
| Gallon | 5 | 7 | 1 | 2 | 4.6 |
| Bulk | 20 | 23 | 30 | 33 | 24.9 |
| | 100% | 100% | 100% | 100% | 100% |

*Less than 1%
Note: Totals may not add due to rounding.

## BREAKDOWN OF PAPER AND PLASTIC CONTAINERS

**Ice Cream**

Paper 84.5
Plastic 15.5

Source: Survey conducted by International Ice Cream Association and Dairy Foods Magazine, based on 1988 volume. Full survey results may be purchased from IICA Marketing Department, (202) 296-4250.

## HARD FROZEN PRODUCTION OF ICE CREAM AND RELATED PRODUCTS BY REGIONS — 1989

| Region | Ice Cream | Ice Milk | Sherbet | Total Three Products 1/ |
|---|---|---|---|---|
| | | | (Thousand Gallons) | |
| New England | 60,641 | 10,149 | 3,404 | 74,194 |
| Mid Atlantic | 118,259 | 11,642 | 6,928 | 136,829 |
| E. N. Central | 121,072 | 14,414 | 8,408 | 143,894 |
| W. N. Central | 92,344 | 11,251 | 6,259 | 109,854 |
| South Atlantic | 111,369 | 23,666 | 7,896 | 142,931 |
| South Central | 114,325 | 23,071 | 6,959 | 144,355 |
| Mountain | 37,081 | 4,195 | 1,990 | 43,266 |
| Pacific | 131,840 | 21,557 | 6,339 | 159,736 |
| UNITED STATES 2/ | 788,933 | 120,266 | 48,546 | 957,745 |

1/ Includes ice cream, ice milk and sherbet.

2/ Alaska & Hawaii included in U.S. totals only.

Note: Regional data for hard production of frozen yogurt and mellorine-type products are not available for 1989.

Prepared by the International Ice Cream Association from data released by U.S. Department of Agriculture.

## PER CAPITA AND PERCENT OF TOTAL PRODUCTION OF HARD FROZEN PRODUCTS
## ICE CREAM AND ICE MILK
## BY REGIONS — 1970 - 1989

| Product & Year | New England | Mid Atlantic | E. N. Central | W. N. Central | South Atlantic | South Central | Mountain | Pacific | United States |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (Quarts per Capita) | | | | | |
| **ICE CREAM** | | | | | | | | | |
| 1970 | 19.81 | 16.43 | 16.63 | 17.82 | 11.17 | 9.96 | 11.81 | 14.41 | 14.47 |
| 1975 | 24.45 | 14.52 | 16.86 | 17.94 | 12.08 | 11.48 | 10.92 | 15.69 | 14.92 |
| 1980 | 21.03 | 14.42 | 15.77 | 19.04 | 11.20 | 10.57 | 11.82 | 15.14 | 14.12 |
| 1985 | 22.19 | 14.64 | 14.98 | 21.18 | 11.40 | 11.91 | 11.43 | 15.45 | 14.44 |
| 1986 | 22.56 | 14.86 | 15.05 | 22.26 | 11.70 | 12.21 | 11.81 | 15.56 | 14.71 |
| 1987 | 22.28 | 14.62 | 14.66 | 23.27 | 11.48 | 12.01 | 11.89 | 15.37 | 14.57 |
| 1988 | 21.18 | 14.10 | 13.26 | 21.17 | 10.79 | 11.48 | 11.94 | 14.69 | 13.73 |
| 1989 | 18.63 | 12.54 | 11.45 | 20.69 | 10.33 | 10.78 | 9.56 | 13.78 | 12.71 |
| **ICE MILK** | | | | | | | | | |
| 1970 | 0.99 | 1.51 | 2.24 | 3.95 | 4.16 | 3.35 | 1.96 | 2.39 | 2.64 |
| 1975 | 2.34 | 1.46 | 1.89 | 3.13 | 2.58 | 2.59 | 1.74 | 1.91 | 2.17 |
| 1980 | 1.33 | 0.94 | 1.15 | 2.29 | 1.82 | 1.38 | 1.56 | 1.85 | 1.47 |
| 1985 | 1.28 | 0.53 | 0.82 | 1.99 | 1.18 | 1.18 | 0.67 | 1.12 | 1.04 |
| 1986 | 1.52 | 0.66 | 0.86 | 2.43 | 1.20 | 1.30 | 0.67 | 1.04 | 1.12 |
| 1987 | 2.34 | 0.69 | 1.07 | 2.24 | 1.01 | 1.43 | 0.69 | 1.28 | 1.22 |
| 1988 | 2.87 | 0.94 | 1.00 | 2.80 | 1.39 | 1.62 | 1.24 | 1.93 | 1.55 |
| 1989 | 3.12 | 1.23 | 1.36 | 2.52 | 2.20 | 2.18 | 1.08 | 2.25 | 1.94 |
| | | | | (Percent of Total Production of Hard Frozen Products) | | | | | |
| **ICE CREAM** | | | | | | | | | |
| 1970 | 90 | 88 | 83 | 77 | 70 | 60 | 78 | 71 | 77 |
| 1975 | 88 | 87 | 85 | 81 | 78 | 70 | 80 | 80 | 81 |
| 1980 | 90 | 90 | 89 | 84 | 82 | 80 | 83 | 83 | 85 |
| 1985 | 91 | 92 | 90 | 87 | 86 | 84 | 90 | 89 | 88 |
| 1986 | 90 | 91 | 90 | 85 | 86 | 83 | 90 | 90 | 88 |
| 1987 | 87 | 91 | 89 | 86 | 88 | 82 | 90 | 88 | 87 |
| 1988 | 84 | 89 | 88 | 82 | 84 | 80 | 87 | 84 | 85 |
| 1989 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **ICE MILK** | | | | | | | | | |
| 1970 | 4 | 8 | 11 | 17 | 26 | 20 | 13 | 12 | 14 |
| 1975 | 8 | 9 | 10 | 14 | 17 | 16 | 13 | 10 | 12 |
| 1980 | 6 | 6 | 6 | 10 | 13 | 10 | 11 | 10 | 9 |
| 1985 | 5 | 3 | 5 | 8 | 9 | 8 | 5 | 6 | 6 |
| 1986 | 6 | 4 | 5 | 9 | 9 | 9 | 6 | 6 | 7 |
| 1987 | 9 | 4 | 6 | 8 | 8 | 10 | 5 | 8 | 7 |
| 1988 | 11 | 6 | 7 | 11 | 11 | 11 | 9 | 12 | 10 |
| 1989 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

n.a.—not available since regional data for hard production of frozen yogurt and mellorine-type products is not available, total production of hard products is also not available on a regional basis.

Prepared by International Ice Cream Association from data released by the U.S. Department of Agriculture.

## SOFT SERVE PRODUCTION — TOTAL AND PER CAPITA
## ICE CREAM AND RELATED PRODUCTS
## 1965 — 1989

| YEAR | ICE CREAM | | ICE MILK | | SHERBET | | OTHER FROZEN PRODUCTS 1/ | | TOTAL FOUR PRODUCTS 2/ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts | Total 1,000 Gallons | Per Capita Quarts |
| 1965 | 15,976 | 0.33 | 104,846 | 2.17 | 495 | 0.01 | 3,026 | 0. 06 | 124,343 | 2.57 |
| 1970 | 24,991 | 0.49 | 152,423 | 2.99 | 1,244 | 0.02 | 11,103 | 0.22 | 189,761 | 3.72 |
| 1975 | 33,058 | 0.61 | 182,180 | 3.38 | 2,546 | 0.05 | 6,314 | 0.12 | 224,098 | 4.16 |
| 1980 | 27,922 | 0.49 | 209,800 | 3.70 | 1,442 | 0.03 | 3,263 | 0.06 | 242,427 | 4.28 |
| 1985 | 39,683 | 0.66 | 239,327 | 4.01 | 2,272 | 0.04 | 1,619 | 0.03 | 282,901 | 4.74 |
| 1986 | 36,895 | 0.61 | 246,940 | 4.10 | 2,448 | 0.04 | 870 | 0.01 | 287,153 | 4.76 |
| 1987 | 41,791 | 0.69 | 253,499 | 4.17 | 3,172 | 0.05 | 2,319 | 0.04 | 300,781 | 4.94 |
| 1988 | 38,087 | 0.62 | 259,745 | 4.23 | 2,995 | 0.05 | 1,646 | 0.03 | 302,473 | 4.92 |
| 1989 | 42,226 | 0.68 | 256,241 | 4.13 | 3,651 | 0.06 | 65,522 | 1.06 | 367,640 | 5.92 |

1/Includes only mellorine-type products 1965-1988. Also includes frozen yogurt beginning in 1989. Soft frozen yogurt production estimated at 63.7 million gallons for 1989.

2/ Includes ice cream, ice milk, sherbet and mellorine-type products 1965-1988. Also includes frozen yogurt beginning in 1989.

Note: Soft Frozen yogurt production estimated by IICA.

Prepared by the International Ice Cream Association from data released by the U.S. Department of Agriculture.

## SOFT-SERVE PRODUCTION OF ICE CREAM AND RELATED PRODUCTS BY REGIONS — 1989

| Region | Ice Cream | Ice Milk | Sherbet | Total Three Products 1/ |
|---|---|---|---|---|
| | | (Thousand Gallons) | | |
| New England | 2,642 | 8,600 | -- | 11,242 |
| Mid Atlantic | 20,063 | 29,234 | 424 | 49,721 |
| E. N. Central | 7,374 | 57,755 | 1,184 | 66,313 |
| W. N. Central | 2,187 | 35,845 | 343 | 38,375 |
| South Atlantic | 6,027 | 36,294 | 686 | 43,007 |
| South Central | 2,581 | 34,429 | 125 | 37,135 |
| Mountain | 597 | 17,423 | 329 | 18,349 |
| Pacific | 698 | 34,453 | 560 | 35,711 |
| UNITED STATES 2/ | 42,226 | 256,241 | 3,651 | 302,118 |

1/ Includes ice cream, ice milk, sherbet and mellorine-type products.

2/ Alaska & Hawaii included in U.S. totals only.
— No Production

Note: Regional data for soft production of frozen yogurt and mellorine-type products are not available for 1989.

Prepared by the International Ice Cream Association from data released by the U.S. Department of Agriculture.

| Product & Year | New England | Mid Atlantic | E. N. Central | W. N. Central | South Atlantic | South Central | Mountain | Pacific | United States |
|---|---|---|---|---|---|---|---|---|---|
| | | | | (Quarts per Capita) | | | | | |
| **ICE CREAM** | | | | | | | | | |
| 1970 | 1.01 | 1.53 | 0.23 | 0.12 | 0.19 | 0.22 | 0.09 | 0.21 | 0.49 |
| 1975 | 0.27 | 1.75 | 0.54 | 1.29 | 0.25 | 0.23 | 0.04 | 0.08 | 0.61 |
| 1980 | 0.80 | 1.77 | 0.33 | 0.11 | 0.28 | 0.21 | 0.11 | 0.04 | 0.49 |
| 1985 | 0.69 | 2.19 | 0.61 | 0.18 | 0.63 | 0.20 | 0.18 | 0.12 | 0.66 |
| 1986 | 0.69 | 2.24 | 0.46 | 0.17 | 0.45 | 0.22 | 0.18 | 0.09 | 0.61 |
| 1987 | 1.14 | 2.24 | 0.65 | 0.23 | 0.23 | 0.50 | 0.15 | 0.11 | 0.69 |
| 1988 | 0.94 | 2.05 | 0.82 | 0.14 | 0.23 | 0.19 | 0.37 | 0.08 | 0.62 |
| 1989 | 0.81 | 2.13 | 0.70 | 0.49 | 0.56 | 0.24 | 0.15 | 0.07 | 0.68 |
| **ICE MILK** | | | | | | | | | |
| 1970 | 2.66 | 1.81 | 3.65 | 4.29 | 2.50 | 2.15 | 4.60 | 4.16 | 2.99 |
| 1975 | 3.00 | 1.94 | 4.60 | 4.57 | 3.28 | 2.55 | 3.44 | 4.04 | 3.38 |
| 1980 | 3.39 | 2.17 | 4.99 | 5.05 | 3.67 | 3.01 | 4.67 | 3.63 | 3.70 |
| 1985 | 3.12 | 2.40 | 4.39 | 6.58 | 3.87 | 3.94 | 5.16 | 4.11 | 4.01 |
| 1986 | 2.96 | 2.83 | 4.88 | 5.68 | 4.09 | 3.75 | 5.43 | 4.06 | 4.10 |
| 1987 | 2.63 | 3.00 | 4.74 | 7.11 | 4.00 | 3.90 | 5.26 | 3.88 | 4.16 |
| 1988 | 2.69 | 3.05 | 5.18 | 7.00 | 3.68 | 3.77 | 5.84 | 4.01 | 4.22 |
| 1989 | 2.64 | 3.10 | 5.46 | 8.03 | 3.37 | 3.25 | 4.49 | 3.60 | 4.13 |
| | | | | (Percent of Total Production of Soft-Serve Products) | | | | | |
| **ICE CREAM** | | | | | | | | | |
| 1970 | 27 | 46 | 6 | 3 | 7 | 7 | 2 | 5 | 13 |
| 1975 | 8 | 47 | 10 | 21 | 7 | 7 | 1 | 2 | 15 |
| 1980 | 19 | 45 | 6 | 2 | 7 | 6 | 2 | 1 | 11 |
| 1985 | 18 | 47 | 12 | 3 | 14 | 5 | 3 | 3 | 14 |
| 1986 | 19 | 44 | 9 | 3 | 10 | 5 | 3 | 2 | 13 |
| 1987 | 31 | 44 | 12 | 3 | 6 | 12 | 3 | 3 | 15 |
| 1988 | 26 | 40 | 13 | 2 | 6 | 5 | 6 | 2 | 13 |
| 1989 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| **ICE MILK** | | | | | | | | | |
| 1970 | 72 | 54 | 86 | 92 | 93 | 67 | 98 | 94 | 80 |
| 1975 | 92 | 52 | 87 | 76 | 91 | 76 | 99 | 96 | 81 |
| 1980 | 81 | 55 | 91 | 94 | 91 | 90 | 97 | 99 | 87 |
| 1985 | 81 | 52 | 86 | 96 | 85 | 93 | 95 | 96 | 85 |
| 1986 | 81 | 56 | 90 | 96 | 89 | 93 | 96 | 97 | 86 |
| 1987 | 68 | 55 | 86 | 94 | 93 | 85 | 94 | 96 | 83 |
| 1988 | 74 | 59 | 85 | 97 | 93 | 92 | 92 | 97 | 86 |
| 1989 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

n.a.—Since regional data for soft-serve frozen yogurt are not available for 1989, the percent of total soft-serve market for ice cream and ice milk cannot be calculated.

Prepared by the International Ice Cream Association from data released by the U.S. Department of Agriculture.

# Review – Canada

## Production 1989

Production of total frozen desserts in Canada declined 2.5 percent in 1989 with nearly all of the drop concentrated in the ice cream category. This decline in production comes on top of only a one percent increase in total frozen dessert production in 1988. These performance inconsistencies are primarily driven by the year-to-year fluctuations of ice cream production.

Canadian ice cream production declined 2.6 percent in 1989 after having rebounded in 1988. Hard ice cream accounted for the entire drop in production while soft-serve actually showed a gain of nearly 6 percent. Overall, total ice cream production leveled off at 313 million litres (82.6 million gallons) for the year.

After a substantial 17 percent gain in 1988, ice milk production in 1989 increased 3.5 percent—not enough to offset the loss from ice cream. Ice milk production for the year, however, did set a record level of 18.8 million litres (5.0 million gallons).

Water Ices increased 3.7 percent in 1989, maintaining their recent upward trend. Sherbet production recovered in 1989 and showed an 8.4 percent gain, making up most of the ground that it lost during 1988. Production for the year stood at 3.2 million liters (.8 million gallons).

On a regional basis, most of the decline in 1989 frozen dessert production was accounted for by the heavily populated provinces of Ontario and Quebec. Per capita ice cream production in Ontario slipped from 13.61 liters in 1988 to 12.78 liters in 1989, a drop of nearly 7 percent. In Quebec, per capita ice cream production declined about 5 percent, from 10.94 liters in 1988 to 10.37 liters in 1989.

| | 1989 Total Production (Liters) 1/ | % Change from 1987 | 1989 Capita Production (Liters) 1/ | % Change from 1988 |
|---|---|---|---|---|
| Total Ice Cream | 312,662,000 | – 2.5 | 11.91 | – 3.7 |
| Ice Cream - Hard | 295,354,000 | – 3.0 | 11.25 | – 4.2 |
| Ice Cream - Soft | 17,308,000 | + 5.6 | 0.66 | + 4.8 |
| Freezer-Made Milkshake2/ | 17,303,000 | – 13.7 | 0.66 | – 14.3 |
| Ice Milk | 18,794,000 | + 3.5 | 0.58 | + 2.4 |
| Water Ices | 15,125,000 | + 3.7 | 0.58 | + 2.4 |
| Sherbet | 3,200,000 | + 8.4 | 0.12 | + 7.2 |
| TOTAL ALL | 367,084,000 | – 2.5 | 25.76 | – 3.7 |

1/ One U.S. quart equivalent to .946 liters.
2/ Freezer-made milkshake derived by applying 40% overrun to milkshake mix.

Prepared by the International Ice Cream Association from data released by Statistics Canada.

## Selected Countries

This section includes data for 47 countries, including United States and Canada. In some countries, production is reported only by the large manufacturers and no estimates are available for the output by small establishments. In such instances, the computed production and per capita are incomplete but the reported figures indicate trends.

| Country and Product | ANNUAL PRODUCTION In Reported Units | ANNUAL PRODUCTION Converted to U.S. Gallons | PER CAPITA PRODUCTION In Reported Units | PER CAPITA PRODUCTION Converted to U.S. Pints |
|---|---|---|---|---|
| UNITED STATES - 1989 | | | | |
| Ice Cream | | 831,159,000 | | 26.80 |
| Ice Milk | | 376,507,000 | | 12.14 |
| Frozen Yogurt | | 82,454,000 | | 2.66 |
| Sherbet | | 52,197,000 | | 1.68 |
| Water Ices | | 47,657,000 | | 1.54 |
| Other Frozen Dairy Products | | 43,324,000 | | 1.40 |
| Total | | 1,433,298,000 | | 46.20 |
| ARGENTINA - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 35,100,000 | 9,273,000 | 1.10 | 2.32 |
| Ice Milk | 5,400,000 | 1,427,000 | 0.17 | 0.36 |
| Sherbet & Water Ices | 3,600,000 | 951,000 | 0.11 | 0.23 |
| Others | 900,000 | 238,000 | 0.03 | 0.06 |
| Total | 45,000,000 | 11,889,000 | 1.41 | 2.97 |
| AUSTRALIA - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 199,020,000 | 52,581,000 | 12.10 | 25.58 |
| Milk Ice | 40,747,000 | 10,765,000 | 2.48 | 5.24 |
| Water Ices | 23,127,000 | 6,110,000 | 1.41 | 2.98 |
| Other 1/ | 18,106,000 | 4,784,000 | 1.10 | 2.33 |
| Total | 281,000,000 | 74,240,000 | 17.04 | 36.13 |
| AUSTRIA - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 36,000,000 | 9,511,000 | 5.20 | 10.99 |
| Sherbet & Water Ices | 12,000,000 | 3,170,000 | 1.60 | 3.38 |
| Total | 48,000,000 | 12,681,000 | 6.80 | 14.37 |
| BELGIUM/LUXEMBOURG - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 104,011,000 | 27,477,000 | 10.55 | 22.30 |
| BRAZIL - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 104,000,000 | 27,477,000 | 0.69 | 1.46 |
| Ice Milk | 17,000,000 | 4,491,000 | 0.13 | 0.27 |
| Sherbert & Water Ices | 52,000,000 | 13,738,000 | 0.34 | 0.72 |
| Total | 173,000,000 | 45,676,000 | 1.16 | 2.45 |
| CANADA - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 312,662,000 | 82,605,000 | 11.91 | 25.18 |
| Freezer-made Milkshakes2/ | 17,303,000 | 4,571,000 | 0.67 | 1.42 |
| Ice Milk | 18,794,000 | 4,965,000 | 0.72 | 1.52 |
| Water Ices | 3,200,000 | 845,000 | 0.12 | 0.25 |
| Sherbet | 15,125,000 | 3,996,000 | 0.58 | 1.23 |
| Total | 367,084,000 | 96,982,000 | 14.00 | 29.60 |

# International Statistics

| Country and Product | Annual Production In Reported Units | Annual Production Converted to U.S. Gallons | Per Capita Production In Reported Units | Per Capita Production Converted to U.S. Pints |
|---|---|---|---|---|
| COLUMBIA - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 12,550 | 6,149,500 | 0.38 | 1.49 |
| Sherbet | 1,050 | 385,875 | 0.03 | 0.09 |
| Water Ices | 840 | 308,700 | 0.03 | 0.09 |
| Total | 14,440 | 6,844,075 | 0.44 | 1.67 |
| CZECHOSLOVAKIA - 1987 | (Liters) | | (Liters) | |
| Total Frozen Dairy Products | 48,465,000 | 12,804,000 | 3.10 | 6.54 |
| DENMARK - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 41,000,000 | 10,832,000 | 8.05 | 17.00 |
| Water Ices | 2,800,000 | 740,000 | 0.55 | 1.16 |
| Total | 43,800,000 | 11,572,000 | 8.60 | 18.16 |
| EAST GERMANY | (Metric Tons) | | (Kilograms) | |
| Ice Cream (only) | 35,000 | 17,150,000 | 2.08 | 8.15 |
| EGYPT - 1989 | (Metric Tons) | | (Kilograms) | |
| Total Frozen Desserts | 9,800,000 | 4,802,000 | 0.20 | 0.78 |
| FINLAND - 1987 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 53,000 | 25,970,000 | 10.74 | 42.10 |
| FRANCE - 1989 | (Liters) | | (Liters) | |
| Ice Cream - Industrial | 270,618,000 | 71,497,000 | 4.83 | 10.21 |
| WEST GERMANY - 1987 | (Liters) | | (Liters) | |
| Ice Cream - Industrial | 343,600,000 | 90,779,000 | 5.63 | 11.90 |
| Small Establishments | 95,000,000 | 25,099,000 | 1.56 | 3.29 |
| Total | 438,600,000 | 115,878,000 | 7.19 | 15.19 |
| GREECE | (Metric Tons) | | (Kilograms) | |
| Frozen Desserts | 30,000 | 14,700,000 | 2.99 | 11.72 |
| GUATAMALA - 1987 | (Liters) | | (Liters) | |
| Ice Cream | 2,416,864 | 638,535 | 0.26 | 0.55 |
| Ice Milk | 1,325,788 | 350,273 | 0.15 | 0.32 |
| Fruit Ice Creams | 4,535,987 | 1,198,408 | 0.50 | 1.06 |
| Total | 8,278,639 | 2,187,216 | 0.91 | 1.93 |
| HONG KONG - 1987 | | | | |
| Ice Cream | | 4,500,000 | | 8.04 |
| Sherbet | | 100,000 | | 0.17 |
| Water Ices | | 950,000 | | 1.70 |
| Total | | 5,550,000 | | 9.91 |
| HUNGARY - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 13,000 | 6,370,000 | 1.23 | 4.82 |
| INDIA - 1988 | (Metric Tons) | | (Kilograms) | |
| Total Frozen Desserts | 320,000 | 156,800,000 | 0.38 | 1.49 |
| ISRAEL - 1989 | (Metric Tons) | | (Kilograms) | |
| Total Frozen Desserts | 26,500 | 12,985,000 | 6.06 | 23.76 |

# International Statistics

| Country and Product | ANNUAL PRODUCTION In Reported Units | ANNUAL PRODUCTION Converted to U.S. Gallons | PER CAPITA PRODUCTION In Reported Units | PER CAPITA PRODUCTION Converted to U.S. Pints |
|---|---|---|---|---|
| ITALY - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream - Industrial | 198,300 | 97,167,000 | 3.44 | 13.48 |
| Small Establishments | 100,000 | 49,000,000 | 1.74 | 6.82 |
| Total | 298,300 | 146,167,000 | 5.18 | 20.30 |
| IVORY COAST - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream & Related Products | 10,400 | 5,096,000 | 0.90 | 3.53 |
| JAPAN - 1987 | (Liters) | | (Liters) | |
| Ice Cream | 236,800,000 | 62,563,000 | 1.97 | 4.16 |
| Ice Milk | 59,900,000 | 15,826,000 | 0.50 | 1.06 |
| Lacto Ices | 330,500,000 | 87,318,000 | 2.75 | 5.81 |
| Water Ices | 282,600,000 | 74,663,000 | 2.36 | 4.99 |
| Total | 909,800,000 | 240,370,000 | 7.58 | 16.02 |
| KENYA - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 1,250,000 | 330,200 | 0.05 | 0.11 |
| Milk Ices | 105,000 | 27,800 | 0.01 | 0.02 |
| Soft Serve | 280,000 | 74,000 | 0.01 | 0.02 |
| Water Ices | 190,000 | 50,200 | 0.01 | 0.02 |
| Total | 1,825,000 | 482,200 | 0.08 | 0.17 |
| KOREA - 1989 | (Liters) | | (Liters) | |
| Ice Cream | 84,534,000 | 22,334,000 | 1.95 | 4.12 |
| MALAYSIA - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 7,459,000 | 1,971,000 | 0.45 | 0.95 |
| Bars & Popsicles | 14,250,000 | 3,765,000 | 0.85 | 1.80 |
| Total | 21,709,000 | 5,736,000 | 1.30 | 2.75 |
| MOROCCO - 1988 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 560 | 274,400 | 0.02 | 0.08 |
| NEW ZEALAND - 1987 | (Liters) | | (Liters) | |
| Ice Cream | 46,567,000 | 12,303,000 | 14.05 | 29.67 |
| Soft Serve | 4,854,000 | 1,282,000 | 1.47 | 3.09 |
| Total | 51,421,000 | 13,585,000 | 15.52 | 32.76 |
| NIGERIA - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 3,500,000 | 925,000 | 0.03 | 0.06 |
| NORWAY - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 47,979,000 | 12,676,000 | 11.9 | 25.13 |
| Soft Ice Cream | 2,566,000 | 678,000 | 0.06 | 1.27 |
| Sherbet | 2,686,000 | 710,000 | 0.7 | 1.48 |
| Total | 53,231,000 | 14,064,000 | 13.2 | 27.88 |
| PAKISTAN - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 28,000 | 13,720,000 | 0.25 | 0.98 |
| Ice Milk | 10,000 | 4,900,000 | 0.09 | 0.35 |
| Sherbet | 15,000 | 5,512,500 | 0.14 | 0.55 |
| Total | 53,000 | 24,132,500 | 0.48 | 1.88 |
| POLAND - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 34,167 | 16,742,000 | 0.90 | 3.53 |

## PRODUCTION OF ICE CREAM AND RELATED PRODUCTS — CANADA
1973 — 1989

| Year | Ice Cream | | | Freezer-made | | | | Total All |
|---|---|---|---|---|---|---|---|---|
| | Hard | Soft | Total | Milkshake 1/ | Ice Milk | Sherbet | Water Ices | Products |
| | | | | (Thousand Liters 2/) | | | | |
| 1973 | 256,954 | 18,221 | 275,175 | 10,304 | 13,879 | 3,914 | 15,402 | 318,674 |
| 1974 | 259,164 | 18,580 | 277,744 | 12,003 | 11,429 | 3,841 | 11,583 | 316,600 |
| 1975 | 266,515 | 20,717 | 287,232 | 11,820 | 12,675 | 3,337 | 12,602 | 327,666 |
| 1976 | 258,850 | 20,721 | 279,571 | 13,219 | 14,084 | 3,578 | 11,665 | 322,117 |
| 1977 | 269,637 | 21,536 | 291,173 | 15,364 | 15,219 | 3,122 | 11,398 | 336,276 |
| 1978 | 266,150 | 21,465 | 287,615 | 14,718 | 15,158 | 3,528 | 11,786 | 332,805 |
| 1979 | 289,748 | 17,921 | 307,669 | 24,112 | 12,130 | 3,664 | 12,744 | 360,319 |
| 1980 | 295,215 | 16,718 | 311,933 | 26,803 | 12,446 | 3,170 | 12,924 | 367,276 |
| 1981 | 292,421 | 19,549 | 311,970 | 28,094 | 13,429 | 2,900 | 13,074 | 369,467 |
| 1982 | 284,898 | 18,541 | 303,439 | 27,391 | 13,345 | 2,486 | 14,249 | 360,910 |
| 1983 | 293,784 | 17,805 | 311,589 | 28,164 | 13,435 | 3,194 | 16,266 | 372,648 |
| 1984 | 283,996 | 17,209 | 301,205 | 26,244 | 16,929 | 2,900 | 19,496 | 366,774 |
| 1985 | 292,667 | 17,540 | 310,207 | 28,869 | 16,481 | 2,556 | 15,886 | 373,999 |
| 1986 | 300,394 | 17,727 | 318,121 | 31,078 | 17,432 | 2,580 | 17,285 | 386,496 |
| 1987 | 293,458 | 17,561 | 311,019 | 29,386 | 15,561 | 3,306 | 14,363 | 373,635 |
| 1988 | 304,524 | 16,397 | 320,921 | 20,051 | 18,166 | 2,953 | 14,589 | 376,680 |
| 1989 | 295,354 | 17,308 | 312,662 | 17,303 | 18,794 | 3,200 | 15,125 | 367,084 |

1/ Freezer-made milkshakes derived by applying 40% overrun in milkshake mix.

2/ One U.S. quart equivalent to .946 liter.

Prepared by the International Ice Cream Association from data released by Statistics Canada.

MONTHLY PRODUCTION OF ICE CREAM AND RELATED PRODUCTS — CANADA
1989

| Month | Ice Cream | | | Freezer-made Milkshake 1/ | Ice Milk | Sherbet | Water Ices | Total All Products |
|---|---|---|---|---|---|---|---|---|
| | Hard | Soft | Total | | | | | |
| | (Thousand Liters) 2/ | | | | | | | |
| January | 17,000 | 488 | 17,488 | 1,008 | 827 | 224 | 318 | 19,865 |
| February | 20,051 | 503 | 20,554 | 1,019 | 1,002 | 205 | 761 | 23,541 |
| March | 24,628 | 744 | 25,372 | 1,541 | 1,534 | 244 | 1,722 | 30,413 |
| April | 26,792 | 1,812 | 28,604 | 1,414 | 1,941 | 442 | 2,321 | 34,722 |
| May | 29,351 | 2,374 | 31,725 | 1,778 | 2,169 | 255 | 2,023 | 37,950 |
| June | 32,236 | 3,045 | 35,281 | 1,983 | 2,765 | 331 | 2,329 | 42,689 |
| July | 31,020 | 3,101 | 34,121 | 1,909 | 2,279 | 307 | 2,030 | 40,646 |
| August | 29,017 | 2,154 | 31,171 | 1,812 | 2,089 | 276 | 1,672 | 37,020 |
| September | 23,523 | 1,164 | 24,687 | 1,366 | 1,349 | 183 | 699 | 28,284 |
| October | 21,459 | 853 | 22,312 | 1,185 | 1,397 | 229 | 605 | 25,728 |
| November | 22,361 | 567 | 22,928 | 1,071 | 926 | 289 | 440 | 25,654 |
| December | 17,916 | 503 | 18,419 | 1,217 | 514 | 215 | 205 | 20,570 |
| YEAR | 295,354 | 17,308 | 312,662 | 17,303 | 18,794 | 3,200 | 15,125 | 367,084 |

1/ Freezer-made milkshake derived by applying 40% overrun to milkshake mix.

2/ One U.S. quart equivalent to .946 liter.

Prepared by the International Ice Cream Association from data released by Statistics Canada.

## PER CAPITA PRODUCTION OF ICE CREAM — CANADA BY PROVINCES — 1980-1989

| Province | 1980 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|
| | | | | (Liters) 1/ | | | | |
| Alberta | 14.59 | 14.74 | 15.50 | 16.19 | 16.68 | 15.29 | 14.81 | 13.87 |
| British Columbia | 14.44 | 12.49 | 10.71 | 11.02 | 11.16 | 11.07 | 10.13 | 10.21 |
| Manitoba | 20.43 | 19.98 | 18.27 | 17.46 | 15.84 | 15.84 | 14.94 | 15.04 |
| Nova Scotia | 13.96 | 13.50 | 12.99 | 12.55 | 12.68 | 13.26 | 13.27 | 13.47 |
| Ontario | 13.06 | 13.60 | 12.86 | 13.54 | 13.90 | 13.05 | 13.61 | 12.78 |
| Quebec | 12.35 | 10.82 | 10.65 | 10.68 | 11.07 | 11.12 | 10.94 | 10.37 |
| CANADA 2/ | 13.38 | 12.56 | 12.05 | 12.32 | 12.54 | 12.13 | 12.37 | 11.91 |

1/ One U.S. quart equivalent to .946 liter.

2/ Includes production in New Brunswick, Newfoundland, Prince Edward Island and Saskatchewan which could not be reported separately.

Prepared by the International Ice Cream Association from data released by Statistics Canada.

## PRODUCTION OF HARD AND SOFT ICE CREAM - CANADA BY PROVINCES — 1987-1989

| Province | Year | Production (Thousand Liters) 1/ | | | Hard | Soft |
|---|---|---|---|---|---|---|
| | | Hard | Soft | Total | (Percent) | |
| Alberta | 1987 | 33,208 | 3,083 | 36,291 | 92 | 8 |
| | 1988 | 32,411 | 2,991 | 35,402 | 92 | 8 |
| | 1989 | 30,809 | 2,865 | 33,674 | 91 | 9 |
| British Columbia | 1987 | 28,559 | 3,828 | 32,387 | 88 | 12 |
| | 1988 | 26,663 | 3,580 | 30,243 | 88 | 12 |
| | 1989 | 27,598 | 3,636 | 31,234 | 88 | 12 |
| Manitoba | 1987 | 15,412 | 1,660 | 17,072 | 90 | 10 |
| | 1988 | 14,595 | 1,615 | 16,210 | 90 | 10 |
| | 1989 | 14,717 | 1,618 | 16,335 | 90 | 10 |
| Nova Scotia | 1987 | 10,643 | 998 | 11,641 | 91 | 9 |
| | 1988 | 10,721 | 996 | 11,717 | 91 | 9 |
| | 1989 | 10,983 | 963 | 11,946 | 92 | 8 |
| Ontario | 1987 | 119,098 | 2,079 | 121,177 | 98 | 2 |
| | 1988 | 126,237 | 2,254 | 128,491 | 98 | 2 |
| | 1989 | 120,437 | 2,095 | 122,532 | 98 | 2 |
| Quebec | 1987 | 67,136 | 4,588 | 71,724 | 94 | 6 |
| | 1988 | 68,177 | 4,555 | 72,732 | 94 | 6 |
| | 1989 | 64,339 | 5,117 | 69,456 | 93 | 7 |
| CANADA 2/ | 1987 | 291,761 | 17,613 | 309,374 | 94 | 6 |
| | 1988 | 304,524 | 16,397 | 320,921 | 95 | 5 |
| | 1989 | 295,354 | 17,308 | 312,662 | 94 | 6 |

1/ One U.S. quart equivalent to .946 liter.

2/ Includes production in New Brunswick, Newfoundland, Prince Edward Island and Saskatchewan which could not be reported separately.

Prepared by the International Ice Cream Association from data released by Statistics Canada.

| Country and Product | ANNUAL PRODUCTION In Reported Units | ANNUAL PRODUCTION Converted to U.S. Gallons | PER CAPITA PRODUCTION In Reported Units | PER CAPITA PRODUCTION Converted to U.S. Pints |
|---|---|---|---|---|
| PORTUGAL - 1988 | (Kilograms) | | (Kilograms) | |
| Ice Cream & Related Products | 12,310,000 | 6,031,900 | 1.18 | 4.63 |
| SAUDI ARABIA - 1987 | (Liters) | | (Liters) | |
| Ice Cream | 24,500,000 | 6,473,000 | 1.65 | 3.50 |
| SOUTH AFRICA - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 19,305,000 | 5,100,000 | 0.50 | 1.06 |
| Sherbet | 25,852,000 | 6,830,000 | 0.67 | 1.41 |
| Soft Serve | 5,574,000 | 1,473,000 | 0.14 | 0.30 |
| Water Ices | 2,984,000 | 788,000 | 0.08 | 0.17 |
| Milk Ices | 3,745,000 | 939,000 | 0.10 | 0.21 |
| Total | 57,460,000 | 15,181,000 | 1.49 | 3.15 |
| SPAIN - 1988 | (Liters) | | (Liters) | |
| Ice Cream | 107,570,000 | 28,420,000 | 2.76 | 5.83 |
| Water Ices | 39,220,000 | 10,362,000 | 1.00 | 2.11 |
| Total | 146,790,000 | 38,782,000 | 3.76 | 7.94 |
| SWEDEN - 1989 | (Liters) | | (Liters) | |
| Ice Cream (Hard) | 105,370,000 | 27,839,000 | 12.42 | 26.26 |
| Water Ices | 6,270,000 | 1,657,000 | 0.74 | 1.56 |
| Soft Ice Cream | 7,970,000 | 2,106,000 | 0.94 | 1.99 |
| Total | 119,610,000 | 31,602,000 | 14.10 | 29.81 |
| SWITZERLAND - 1989 | (Liters) | | (Liters) | |
| Ice Cream and Related Products | 51,171,000 | 13,519,000 | 7.70 | 16.28 |
| TAIWAN - 1989 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 20,796 | 10,190,040 | 0.99 | 3.88 |
| Novelties | 4,200 | 2,058,000 | 0.20 | 0.78 |
| Total | 24,996 | 12,248,040 | 1.19 | 4.66 |
| TURKEY - 1989 | (Liters) | | (Liters) | |
| Ice Cream and Related Products | 51,200,000 | 13,527,000 | 0.92 | 1.94 |
| UNITED ARAB EMIRATES - 1987 | (Liters) | | (Liters) | |
| Ice Cream | 5,864,000 | 1,549,300 | 3.18 | 6.71 |
| Ice Milk | 1,340,000 | 354,000 | 0.72 | 1.53 |
| Water Ices | 1,252,000 | 330,800 | 0.67 | 1.43 |
| Other | 49,000 | 12,900 | 0.02 | 0.06 |
| Total | 8,505,000 | 2,247,000 | 4.59 | 9.73 |
| UNITED KINGDOM - 1988 | (Liters) | | (Liters) | |
| Bulk | 102,059,000 | 26,964,000 | 1.79 | 3.78 |
| Soft Ice Cream Mix 3/ | 7,926,000 | 2,094,000 | 0.14 | 0.30 |
| Home Packs | 107,765,000 | 28,472,000 | 1.89 | 3.99 |
| Water Ices | 18,929,000 | 5,001,000 | 0.33 | 0.70 |
| Other Stick Confections | 15,227,000 | 4,023,000 | 0.27 | 0.57 |
| All Other | 49,666,000 | 13,122,000 | 0.87 | 1.84 |
| Total | 301,572,000 | 79,676,000 | 5.29 | 11.18 |

# International Statistics

| Country and Product | ANNUAL PRODUCTION In Reported Units | ANNUAL PRODUCTION Converted to U.S. Gallons | PER CAPITA PRODUCTION In Reported Units | PER CAPITA PRODUCTION Converted to U.S. Pints |
|---|---|---|---|---|
| USSR - 1987 | (Metric Tons) | | (Kilograms) | |
| Ice Cream | 667,000 | 326,830,000 | 2.31 | 9.06 |
| VENEZUELA - 1989 | (Liters) | | (Liters) | |
| Total Frozen Dessert | 80,000,000 | 21,136,000 | 4.15 | 8.77 |
| YUGOSLAVIA - 1988 | (Metric Tons) | | (Kilograms) | |
| Ice Cream - Industrial | 21,300 | 10,437,000 | 0.90 | 3.53 |
| Small Establishments | 7,100 | 3,479,000 | 0.30 | 1.18 |
| Total | 28,400 | 13,916,000 | 1.20 | 4.71 |

1/ Includes aerated milk-based confections and milk-based mixes for soft serves and thick shakes.
2/ Freezer-made milkshake derived by applying 40% overrun in milkshake base.
3/ Converted into ready-made soft ice cream.

CONVERSION FACTORS:
1 Liter = .2642 U.S. Gallons
= 2.1114 U.S. Pints

1 U.S. Gallon of Ice Cream or Ice Milk = 4.5 Pounds
1 U.S. Gallon of Sherbet or Water Ices = 6.0 Pounds

1 Kilogram s = 2.205 Pounds
= .4900 U.S. Gallons of Ice Cream or Ice Milk
= .3675 U.S. Gallons of Sherbet or Water Ices
= 3.920 U.S. Pints of Ice Cream or Ice Milk
= 2.940 U.S. Pints of Sherbet or Water Ices

1 Metric Ton (1,000 Kilograms) = 2,205 Pounds
= 490.0 U.S. Gallons of Ice Cream or Ice Milk
= 367.5 U.S. Gallons of Sherbet or Water Ices

Prepared by the International Ice Cream Association from data supplied by Agriculture Attaches of the U.S. Department of Agriculture, or from government or trade statistics.